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**UNDERGRADUATE
CATALOG**

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**MOREHEAD
STATE
UNIVERSITY**

♦ ♦ ♦
1987-1988

♦ ♦ ♦

Academic Calendar

1987

August 17-18
August 19
August 31
September 7
November 25
November 30
December 8-11
December 12

Fall Semester

Registration
Classes begin
Last day to register for credit (part time enrollment only)
Labor Day holiday (no classes or office hours)
Thanksgiving holiday begins at 11:20 a.m.
Classes resume at 8 a.m.
Final examinations
Commencement. Fall semester closes.

1988

January 11-12
January 13
January 18
January 25
February 15
March 14-18
March 21
March 31
April 1
May 9-13
May 14

Spring Semester

Registration
Classes begin
Martin Luther King's Birthday (no classes or office hours)
Last day to register for credit
Washington's Birthday holiday (no classes or office hours)
Spring vacation (no classes or office hours)
Classes resume at 8 a.m.
Founders Day (10:20 and 11:30 classes dismissed)
Good Friday holiday (no classes or office hours)
Final examinations
Commencement. Spring semester closes at noon.

Undergraduate Catalog 1907-08

Morehead State University

Undergraduate Catalog 1987-88

Memberships American Association of Colleges for Teacher Education
American Association of State Colleges and Universities
American Council on Education
Conference of Southern Graduate Schools
National Commission on Accreditation
National League for Nursing
Southern Regional Education Board
The Council of Graduate Schools in the United States
Council for the Advancement and Support of Education

Accreditation American Dietetics Association
American Veterinary Medical Association
Council on Social Work Education—Baccalaureate Level
Joint Review Committee on Education in Radiologic Technology
National Association of Schools of Music
National Council for the Accreditation of Teacher Education
National League for Nursing
Southern Association of Colleges and Schools

Volume 52
Date August 1987

Toll-free 1-800-262-7474 in Kentucky
Numbers 1-800-354-2090 in other states

Changes Morehead State University reserves the right to change its academic regulations, policies, fees, and curricula without notice by action of the Kentucky Council on Higher Education and/or the Morehead State University Board of Regents.

Equal Opportunity Morehead State University is committed to providing equal educational opportunity to all persons regardless of race, color, national origin, age, religion, marital status, sex, or educationally-unrelated handicaps in its educational programs, activities, employment policies, and admission of students to any program of study as required by Title IX, Title IV, and Section 504. Inquiries should be addressed to Affirmative Action Officer, Morehead State University, 106 Howell-McDowell Ad. Bldg., Morehead, KY 40351.

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Contents

Academic Calendar	IFC
Foreword	iv
How to Use This Catalog	iv
General Information	1
Admissions, Fees, Financial Aid, and Housing	1
Academic Programs and Requirements for Graduation	6
Academic Regulations and Procedures	11
Academic Support Services	15
Academic Opportunities	17
Teacher Education Program and Professional Laboratory Experiences	18
Abbreviations	9, 22
Programs of Study	23
Descriptions of Courses	91
Directories	
Administrative	142
Faculty	143
Faculty Emeriti	146
Index	147
Tables	
Table 1. Programs of Study	7
Table 2. Who to See	21

Foreword

Morehead State University's 500-acre Eastern Kentucky campus is bordered to the north by the gently rolling foothills of the Daniel Boone National Forest. To the south, the campus is bordered by the shopping district of Morehead, a thriving city of about 10,000 which lies midway between Lexington and Ashland on Interstate 64. The university's educational facilities include more than 50 major structures in a variety of contemporary and traditional architectural styles, a 320-acre experimental farm, a nine-hole golf course, and a 50-acre outdoor learning center at Cave Run Lake.

With a coeducational enrollment of approximately 5,700 and a teaching faculty of 278, the university offers 96 undergraduate degree programs, two certificate programs, and ten pre-professional programs of study. It draws students from throughout the United States and several foreign countries to participate in its diverse academic and extracurricular life. The faculty, staff, and administration are committed to carrying out the following purposes of the university:

- The university should be a community of students, teachers, administrators, and staff where all pursue intellectual, creative, and technical development.

- The university should foster an environment in which knowledge may be discovered, integrated, and disseminated for concerns of social significance or for the excitement of research or free inquiry.
- The university should provide opportunity for students to recognize their potentialities and to acquire the discipline necessary for self-realization.
- The university should be a place where the interaction of students and teachers committed to excellence creates an atmosphere in which both will be stimulated to accept the challenges of the universe.
- The university should promote the development of those qualities of leadership necessary to meet the diverse needs of the state, nation, and world.
- The university should develop programs to fulfill its specific mission of serving the economic, education, social, and cultural needs of Northern and Eastern Kentucky.
- The university should respond to the demands of the present by utilizing the achievements and values of the past and by exploring the possibilities of the future.

How to Use This Catalog

This catalog is the official source of information about the university's academic programs. Its purpose is to guide you in planning a course of study and to meet program, department, and university requirements. See the table of contents and index for an outline of the information provided.

The information in this catalog is current as of the time of publication. If you are pursuing a degree and remain continuously enrolled in the university (excluding summers), you may complete a program under the catalog requirements in effect at the time of your original enrollment. If you are not continuously enrolled in the university and do not complete a bachelor's degree within five years (three years for an associate degree), you may be required to meet the program requirements stipulated in a current catalog. If you are a transfer student pursuing a bachelor's degree, the time

allotted for degree completion under the catalog in effect at the time of your enrollment is based upon your classification at the time of transfer; a sophomore transfer would have four years, a junior three years, and a senior two years. If you transfer above the freshman level and you are pursuing an associate degree, you have two years to complete the program under the catalog in effect at the time of your enrollment. The above limitations are based upon continuous enrollment.

Advisors and department and school offices make every effort to provide current information to students, but it is your responsibility to know the policies, regulations, and degree or certificate requirements that affect you. For further information, check with the Office of Academic Affairs, MSU, 201 Ginger Hall, Morehead, KY 40351, telephone (606) 783-2002.

General Information

Admissions, Fees, Financial Aid, and Housing

Admissions

Requests for applications or questions concerning admission should be directed to the Office of Admissions, Morehead State University, Morehead, KY 40351, telephone (606) 783-2000, or toll free 1-800-262-7474 (for long distance calls in Kentucky) or 1-800-354-2090 (for long distance calls from out of state). You are encouraged to visit the campus before registering to discuss your intended program of study. Visits may be scheduled weekdays between 8 a.m. and 4:30 p.m. and at other times by appointment by contacting the Office of Admissions.

Completion of admission requirements allows you to enroll in any program except those in nursing, radiologic technology, and veterinary technology. These programs require a separate application in addition to the application to the university. For additional information for entering these programs, contact the dean of the College of Applied Sciences and Technology, MSU, 246 Reed Hall, Morehead, KY 40351.

Requirements for admission for high school graduates, GED recipients, transfer students, returning students, international students, special students, and auditors are explained below.

Admission as a Freshman

High School Graduates. If you are a graduate of an accredited high school, you will be admitted if you meet the Pre-College Curriculum requirements established by the Kentucky Council on Higher Education and have an admission index of 320. The admission index is a numerical score determined by computing the cumulative grade-point average (g.p.a. must be on a 4.0 scale) times 100, and the American College Test (ACT) Composite times 10.

In order to apply for admission you should submit to the Office of Admissions: (1) a completed Undergraduate Admission and Scholarship Application, (2) official ACT results, (3) the School Information Form completed by your guidance counselor or principal, and (4) a final high school transcript after high school graduation.

A student who does not gain admission based upon the admission index or has not completed the Pre-College Curriculum may be admitted to MSU as a "provisional" student. For more information, contact the Office of Admissions.

GED Recipients. If you are a General Education Development (GED) recipient, you will be considered for admission on the same basis as a high school graduate.

In order to apply for admission you should submit to the Office of Admission: (1) a completed Undergraduate Admission and Scholarship Application, (2) the GED scores, (3) the High School Equivalency Certificate, and (4) official ACT results.

Admission as a Transfer Student

You are eligible for admission if your grade-point average (g.p.a.) is 2.0 or better on a 4.0 scale and you are in good standing at all previously attended institutions. If your g.p.a. is less than a 2.0 on a 4.0 scale, you may be considered for

admission on probationary status. If you are transferring from an institution without regional accreditation, you may be considered for admission.

To be admitted to the university as a transfer student from other colleges and universities, you should submit to the Office of Admissions (1) the Undergraduate Admission Application, (2) official transcripts from all colleges or universities previously attended, and (3) the Transfer Recommendation Form (available from Office of Admissions, MSU) from all institutions previously attended. If you have fewer than 12 hours, you must submit your official ACT scores to the university.

Transfer of Credits. Credits you have earned from regionally accredited colleges or universities will be accepted for transfer.

If you are transferring from a non-accredited institution, your earned credits will be evaluated for transfer after you have completed one semester in residence at the university.

Admission as a Returning Student

If you discontinue your enrollment at MSU for one semester (excluding summer terms), you must submit a completed Undergraduate Admission and Scholarship Application to be readmitted to the university.

If you have attended another institution since you last attended MSU, you must submit: (1) a completed Undergraduate Admission and Scholarship Application, (2) an official transcript from any institution attended, and (3) the MSU Transfer Recommendation Form from the institution from which you are transferring.

Admission as an International Student

To be admitted as an international student, you must submit to the Office of Admissions (1) the International Student Undergraduate Admission Application, (2) official records of previous educational experiences, (3) official scores on the Test of English as a Foreign Language (TOEFL) or the Michigan Examination (a minimum score of 500 is required on the TOEFL and a minimum score of 82 is required for the Michigan Examination) and (4) official verification of financial resources. You should apply at least two months before the semester or term in which you plan to enroll.

If you are transferring to the university from an accredited institution of higher education in the United States, you must submit: (1) the International Student Undergraduate Admission Application, (2) an official transcript from the institution from which you are transferring, and (3) the Transfer Recommendation Form from the institution from which you are transferring.

Transfer of Credits. Credits earned from international institutions may be applied toward a degree program at MSU. Credits will only be considered after they have been evaluated by the International Education Research Foundations, Inc., Credentials Evaluation Service, P.O. Box 24040, Los Angeles, CA 90024. It is the student's responsibility to contact the agency and pay all service fees.

Admission as a Special Student

If you wish to register for a particular course for credit but you are not interested in working toward a degree, you may enter the university as a special student. You should submit to the Office of Admissions the Undergraduate Admission and Scholarship Application.

If you enroll as a special student and later wish to pursue a degree, you may do so by completing the appropriate admission procedure. All work satisfactorily completed as a special student may be used to fulfill degree requirements.

Admission as an Auditor

If you wish to audit a class, you need only submit to the Office of Admissions the Undergraduate Admission Application and written indication of your intent to audit. Although credit cannot be given for courses audited, such courses are recorded on your transcript. Tuition and fees are the same for auditing a course as they are for taking courses for credit.

Admissions Application Dates

Although there is no official deadline, students are encouraged to submit applications by the following dates:

For the fall semester	June 1
For the summer semester	April 1
For the spring semester	October 15

Serviceman's Opportunity College

Morehead State University has been designated as a serviceman's opportunity college. For more information, contact the Office of Admissions.

Fee Assessment for Non-Kentucky Residents

Tuition for non-Kentucky residents is established through a different rate structure than that for Kentucky residents (all other fees or costs are the same for non-Kentucky residents as for Kentucky residents). Changes in circumstances may arise which may affect the residency and thus fee-assessment for students.

Any student or prospective student having questions related to their residency for fee assessment purposes should contact the Office of Admissions to secure additional information or to obtain the necessary forms used in making a determination.

Fees*

Every effort is made to hold cost to a minimum. You pay only the registration and housing fees and a few minor incidental fees when you register at the beginning of each semester. Books and supplies can be purchased at reasonable prices at the University Store. Books may be sold back to the store at the end of the semester. Meals are purchased either on a pay-as-you-go basis or in advance through a meal plan. More specific information on fees follows the list of terms you may encounter as you read this section.

Full-time refers to enrollment for 12 credit hours or more during the fall or spring semester.

Part-time refers to enrollment for less than 12 credit hours during the fall or spring semester.

Residency is an in-state/out-of-state classification for fee assessment purposes; policy guidelines are established and

approved by the Kentucky Council on Public Higher Education.

Tuition is the fee charged for class enrollment.

Undergraduate is a student who has not completed the requirements for a bachelor's degree.

Tuition*

As a full-time student you are entitled to free admission to on-campus athletic events, the Arts in Morehead Series, and the University Lecture Series, and to receive *The Trail Blazer*, the student newspaper. If you are enrolled full time for both the fall and spring semesters you receive the *Raconteur*, the student yearbook. These services are available to you as a part-time student if you pay the activity and service fee.

	Full-Time** Per Semester	Part-Time and Summer Term
Resident		
Undergraduate	\$540.00	\$45.00 per hour
Graduate	\$590.00	\$66.00 per hour
Non-Resident†		
Undergraduate	\$1,540.00	\$129.00 per hour
Graduate	\$1,690.00	\$188.00 per hour
Health Fee	\$25.00	\$4.00/summer term
		\$3.00/visit/part-time student

*All fees are subject to change without notice by action of the Kentucky Council on Higher Education and/or the MSU Board of Regents.

**Includes student activity and service fee.

† See fee assessment for non-Kentucky residents in Admissions section.

Student Health Service Fee

This fee is required of all full-time students (undergraduate and graduate) for the fall and spring semesters. Students who pay this fee are entitled to the basic services of the Caudill Health Clinic.

Housing

Residence Halls. Room rent for each term is due in full at the beginning of the term. Rates include telephone service, television cable, and refrigerators.

Deposit (refundable)—\$50.00.

	Weekly	Per Semester	Per Summer Term
Women's Halls			
East Mignon Hall	\$34.00	\$460.00	\$136.00
Mignon Hall			
Nunn Hall			
Regents Hall			
Men's Halls			
Alumni Tower	\$34.00	\$460.00	\$136.00
Cooper Hall			
Wilson Hall			
Co-educational Halls			
Cartmell Hall	\$34.00	\$460.00	\$136.00
Mignon Tower			
Waterfield Hall			
West Mignon Hall			

Married Student Housing. Deposit (refundable)—\$100.00	
One bedroom (air-conditioned) per mo.	\$195.00
One bedroom per mo.	\$185.00
Studio (efficiency) apartment, per mo.	\$170.00
*Trailer, per mo.	\$185.00
Trailer pad, per mo.	\$60.00
* \$15 extra for air conditioners, per month	

Course Fees

History

HIS 544	\$40.00
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Music

Private lessons for fall, spring, and summer terms:

	Per Semester
Per half-hour lesson per week	\$30.00
Under certain conditions, beginning students in applied music may be assigned to an undergraduate student assistant for instruction; in this event, the fees are one-half the amounts indicated.	
Recital fee, junior and senior (2 hrs.)	\$30.00
Recital fee, senior (3 hrs.) and graduate (2 hrs.)	\$60.00
Composition recital	\$60.00

Other Fees

Late registration	\$25.00
Change of schedule fee	5.00
Reinstatement fee	25.00
Deferred payment application fee	25.00
Thesis continuation fee (699)	10.00
Master's thesis (binding fee) per copy	6.00
I.D. replacement fee	5.00
Transcript	2.00
Service charge on returned checks	10.00
Student parking per year (not refundable)	30.00
TV rental	
Per semester	20.00
Per summer term	7.00
Physical Education (optional)	
Men: uniform, towel and lock	5.00
Women: towel and lock	5.00
(includes refundable deposit of \$2.00)	
Nursing Program testing fee NUR 301	22.00
Military Science activity fee (each semester)	4.00

Refunds

Students withdrawing from school during any semester or term must arrange for their withdrawal with the vice president for academic affairs. No refunds will be made unless the withdrawal is made through the proper channels.

Fall/Spring Semester

First 5 days of classes	75% of refundable fees*
Next 10 days of classes	50% of refundable fees
Next 5 days of classes	25% of refundable fees
No refunds are given after the first 20 days of classes.	

Summer Term

First 2 days of classes	75% of refundable fees
Next 4 days of classes	50% of refundable fees
Next 2 days of classes	25% of refundable fees

No refunds are given after the first 8 days of classes.

*Refundable fees: tuition, housing, meal plan, course fees.

Financing Your College Education at MSU

The university offers a broad program of financial assistance to eligible students in the form of grants, loans, scholarships, and work study.

These are terms you might encounter when you apply for financial aid.

Financial aid package is a combination of different types of financial aid that may make up an award.

Grants are gift aid. Generally no repayment is required. Eligibility is based on calculated financial need.

Need is the difference between the amount it will cost you to attend MSU for an academic year and the expected contribution for your family. It is a primary factor in determining eligibility for most available aid.

Scholarships are generally awarded on the basis of academic achievement, special talent, and/or financial need. They do not have to be repaid. Eligibility requirements and obligations vary from scholarship to scholarship.

Work Study Programs provide part-time employment for eligible students to help with educational expenses. The work schedule is built around the student's academic schedule.

In many cases, financial aid is made up of a combination of the various types of assistance available (a financial aid package). Students who have been admitted or are enrolled for credit in a degree program are eligible for financial aid funds provided they also meet all other requirements for aid. Financial assistance is granted, depending upon the availability of funds, to all eligible students regardless of sex, race, color, or ethnic origin. About 70 percent of the students attending MSU receive financial aid.

The type and amount of financial aid is generally based upon demonstrated financial need, academic achievement, test scores, and other personal talents and interests. Financial need is determined through analysis of the Financial Aid Form (FAF), available in the Office of Financial Aid, MSU, 305 Howell-McDowell Ad. Bldg., Morehead, KY 40351, telephone (606) 783-2011, or the office of any high school guidance counselor. The FAF is analyzed to determine the expected contribution of the student and parents or guardian toward educational expenses.

Apply for financial aid by April 1 for the academic year or for the summer terms. Applying before the deadline increases chances of receiving the aid you request. If you are a transfer student applying for financial aid, you must have a Financial Aid Transcript completed by the financial aid office at all schools you attended previously.

Most financial aid is credited to students' accounts, one-half of the year's award for fall semester registration and the other half for spring semester registration.

For detailed information on financial aid, request the *Student Financial Aid Consumer Information* booklet from the Office of Financial Aid.

Selective Service Registration Requirement

Students are required to produce evidence of registration with Selective Service to be eligible for Title IV student financial aid (Pell Grant, Supplemental Educational Opportunity Grant, College Work-Study, National Direct Student

Loan, Guaranteed Student/Plus Loan, and State Student Incentive Grant Programs). Contact the Office of Financial Aid for more information.

Maintaining Satisfactory Progress

The Higher Education Act of 1965, as amended by Congress in 1986, mandates institutions of higher education to establish minimum standards of "satisfactory progress" for students receiving financial aid. The following satisfactory progress standards are applicable to all federal, state, and institutional financial aid programs administered by MSU.

Satisfactory Progress Defined

In order to initially receive or to continue to receive financial aid, a student must demonstrate satisfactory progress as defined below:

Undergraduate students will be considered to be making satisfactory progress for financial aid purposes as long as all the following requirements are met:

1. The student must successfully complete a minimum of 75 percent of the credit hours attempted during the last semester of enrollment. Successful completion for this purpose is defined as receiving a grade of "D" or better.
2. The student must maintain a minimum cumulative 2.0 grade-point average.
3. The student has attempted no more than 170 undergraduate hours at Morehead State University.

Graduate students will be considered to be making satisfactory progress for financial aid purposes as long as all of the following requirements are met:

1. The student must successfully complete a minimum of 75 percent of the credit hours attempted during the last semester of enrollment. Successful completion for this purpose is defined as receiving a "C" or better.
2. The student must maintain a minimum 3.0 cumulative grade average.
3. The student has attempted no more than 45 graduate hours at Morehead State University. (Exception: Those students pursuing a degree in clinical psychology will be permitted to attempt no more than 80 graduate hours at MSU.)

Policies and Procedures

The specific policies and procedures to be used in applying the satisfactory progress standards are outlined below:

1. Satisfactory progress will be evaluated of each year. (Exception: For the Guaranteed Student Loan and the PLUS Loan programs, evaluation will be completed prior to the certification of the loan application.)
2. Hours attempted for purposes of this policy will be defined as those for which a student receives a grade of A, B, C, D, E, F, I, R, U, or N.
3. For undergraduate students, grades of E, F, I, R, U, and N will not qualify as successful completion of hours attempted. For graduate students, grades of D, E, F, I, R, U, and N will not qualify as successful completion of hours attempted.
4. Non-credit remedial courses, courses taken for audit, and courses in which grades of K, P, or W are received are not figured in the calculation of a student's grade average and therefore are not calculated as hours attempted or completed in determining satisfactory academic progress.
5. If otherwise eligible, students will be given financial aid

during a term in which they may be repeating a course.

6. Transfer credits from other post-secondary institutions will not be used to determine satisfactory progress.

7. A student who fails to maintain satisfactory progress as defined will not be permitted to receive federal, state, or institutional financial aid.

Procedures for Appeal for Students Who Fail to Maintain Satisfactory Progress Standards

Students who fail to meet satisfactory progress standards as defined, may appeal the ruling to the Office of Financial Aid if they believe mitigating circumstances led to their failure to maintain satisfactory progress. Those desiring to appeal must do so in writing on the Satisfactory Progress Appeals Form and must attach supporting documentation. Copies of the appeals form may be obtained in the Office of Financial Aid. Students will be notified in writing of the action taken on their appeal.

Reinstatement of Financial Aid Eligibility

Should a student's financial aid eligibility be terminated for failure to maintain satisfactory progress as defined, the eligibility for financial aid will not be reinstated until the student enrolls for a subsequent academic term (fall, spring, or summer term) at his or her own expense and completes the term satisfying the satisfactory progress definition.

Financial aid eligibility will be reinstated immediately for all students whose appeals are upheld.

Scholarships and Awards

To be considered for a scholarship you must submit a completed Undergraduate Admission and Scholarship Application to the Office of Admissions and be admitted to MSU as an incoming freshman or transfer student. Scholarship applications can be obtained through the Office of Admissions or through area high school guidance offices. The priority filing deadline is March 15. The following are descriptions of the scholarships awarded through the Office of Admissions.

Distinguished Scholar Award. Awards the value of tuition and fees, room, board, and books to entering freshman National Merit Students.

Regional Honors Scholarship. The top two ranked students from each high school in the university's service region who have at least a 3.5 g.p.a. and who enroll at MSU in the subsequent fall semester are eligible for awards of \$2,000 and \$1,800, respectively.

Presidential Scholarship. \$2,000 renewable award. Minimum criteria for consideration: 3.75 g.p.a., 25 composite ACT score.

Regents Scholarship. \$1,000 renewable award. Minimum criteria for consideration: 3.5 g.p.a., 20 composite ACT score.

Leadership Grant. \$500 renewable award. Minimum criteria for consideration: demonstrated leadership and achievement capabilities in school and community activities. A limited number of awards are available for currently enrolled upper-classmen who submit a completed application and one faculty recommendation.

Minority Student Grant. \$500 renewable award. Minimum

criteria for consideration: demonstrated achievement in academic and/or extracurricular activities.

Transfer Student Grant. \$500 renewable award. Minimum criteria for consideration: completion of at least 12 hours of college work and a cumulative 3.3 college g.p.a.

Morehead State University Grant. \$1,200 renewable award. Eligibility: residents of Adams, Brown, Clermont, Hamilton, Highland, Lawrence, or Scioto counties in Ohio; or children of MSU alumni who reside outside of Kentucky. In addition, there are a limited number of MSU Grants available for other out-of-state students that are U.S. citizens. Minimum criteria for consideration: 2.75 cumulative g.p.a. (2.5 cumulative for transfer students) or 20 composite ACT score.

The Morehead State University Grant, awarded to out-of-state students, can be stacked with any other scholarship awarded directly by the president of MSU and the Office of Admissions, with the exception of the Distinguished Scholar Award. The value of these awards is to be applied toward the cost of attendance at MSU.

Alumni Award. \$400 renewable award. For the first 100 applicants to MSU who are Kentucky residents and children of an MSU alumnus who is active in the MSU Alumni Association. Minimum criteria for consideration: 2.75 cumulative or 20 composite ACT score.

All recipients of the above scholarships and grants must agree to continuous full-time enrollment (fall and spring semesters) and continuous residence in university housing (fall and spring semesters). Recipients from Rowan and contiguous counties living at home and commuting to campus may request a waiver of the requirement to live in university housing.

The following are descriptions of scholarships offered through other university departments and programs.

Honors Program Scholarship. \$600 per year toward residence hall room rent for the academic year. Obtain scholarship applications from the Director, Academic Honors Program, Morehead State University, UPO Box 697, Morehead, KY 40351. This award is renewable.

Army Reserve Officers' Training Corps Scholarship. Awarded for periods from two to four years; pays for tuition, textbooks, laboratory fees, other specified educational expenses, and a tax-free subsistence allowance of \$100 per school month. Contact the Professor of Military Science, MSU, UPO Box 1361, Morehead, KY 40351, telephone (606) 783-2050.

E.O. Robinson Mountain Fund Nursing Student Scholarship. For needy students from Eastern Kentucky; maximum annual award is \$500. Contact the Office of Financial Aid.

Northeast Kentucky Hospital Foundation Nursing Student Scholarship. For needy students from Northeastern Kentucky who demonstrate acceptable academic achievement. Contact the Office of Financial Aid.

Athletic Scholarships. Based on athletic potential, these scholarships are limited in number by regulation or institutional policy. Contact the coach of the sport in which you wish to compete or the Director of Athletics, MSU, UPO Box 698, Morehead, KY 40351, telephone (606) 783-2088.

Departmental Scholarships. The university offers a number of departmental scholarships in areas such as music, debate, speech, theatre, and radio and television. You may wish to

contact the department in which you have an interest to explore specific scholarship opportunities.

Outside Funded Scholarships. Granted by agencies outside the university, these are administered through the Office of Financial Aid in accordance with instructions of the donor. If you are to receive such an award, you should ask the donor agency to mail the award and complete instructions for its disposition to the Office of Financial Aid, MSU, Morehead, KY 40351. The telephone number is (606) 783-2011.

Financial Aid

Grants. Repayment is normally not required for the Pell Grant, Supplemental Educational Opportunity Grant (SEOG), or Kentucky Higher Education Assistance Authority Grant (KHEAA). To be considered for these grants you must complete the KFAF or FAF and the MSU Student Financial Aid Personal Data Sheet. Request forms from MSU's Office of Financial Aid or any high school guidance counselor.

Pell Grant. A federally-funded program; eligibility and amount are determined by a standard financial needs analysis formula.

SEOG. A federally-subsidized award based on need. Awards may range from \$100 to \$2,000 per academic year.

KHEAA Grant. A state program based on need. Grants are \$500 per academic year.

Work-Study Programs. The work-study programs provide salaried work in a variety of offices and departments at the university; participants are paid every two weeks.

College Work-Study Program (CWSP). A federally subsidized program based on need.

Institutional Work-Study Program (IWSP). Sponsored by the university, this program is geared to students with specific skills or talents.

Loans. Loans must be repaid, and are available in differing amounts and under varying conditions. Types are Perkins Loan, Guaranteed Student Loan (GSL), Plus Loan Programs (PLUS), Nursing Student Loan (NSL), and the Emergency Loan Fund.

Perkins Loan. A federally subsidized program based upon financial need and funds available. Eligible students may borrow (at 5 percent interest) up to \$3,000 for the first two years of study, with a maximum of \$6,000 for undergraduate work.

GSL. Allows students to borrow money directly from participating private lending institutions (bank, credit union, savings and loan association, or other participating lender). Maximum undergraduate loan is \$2,625 a year for the first and second year and \$4,000 a year for juniors and seniors, to be repaid at the current rate of 8 percent (an origination fee of 5 percent of the face value is deducted from the loan by the lender).

PLUS. Allows independent undergraduate students and parents (natural father, mother, legal guardian, or adoptive parent) of dependent undergraduate students to borrow money from a private lending institution for student educational expenses. Independent undergraduate students may borrow up to \$4,000 per year, less GSL funds borrowed for the year. Parents may borrow up to \$4,000 per academic

year, per student. The current rate of interest is 12 percent, and the first payment is due within 60 days of disbursement at the rate of at least \$600 a year on a maximum 10-year repayment schedule.

NSL. For eligible students enrolled full time in MSU's nursing program. Total of the award depends on financial need and amount of funds available: up to \$2,500 a year, depending on need.

Emergency Loan Fund. Sponsored by MSU and the Student Association, this fund assists students in emergency situations. Students may borrow up to \$20 on a short-term, no-interest basis, depending on funds available. Apply in person to the Office of Financial Aid.

Entitlements. Entitlement programs include Veterans Administration Educational Assistance G.I. Bill and benefits for veterans' dependents; tuition waiver for dependents of Kentucky veterans; and Vocational Rehabilitation Assistance.

Veterans Administration (V.A.) Educational Assistance. For eligible veterans (G.I. Bill) and/or eligible children, wives, and widows of veterans who died or were permanently and totally disabled as the result of service in U.S. Armed Forces (V.A. benefits program). Eligibility is determined by the V.A. For information and application forms, contact the Office of Veteran Affairs or the Veterans Administration Office, 600 Federal Place, Louisville, KY 40202, phone (toll-free) 1-800-292-4562.

Tuition Waiver for Dependents of Kentucky Veterans. Eligibility determined by Dept. for Military Affairs, Kentucky Center for Veterans Affairs, 600 Federal Place, Room 136J, Louisville, KY 40202. For information call the MSU Office of Veteran Affairs.

Vocational Rehabilitation. For eligible individuals with physical or emotional disabilities; eligibility determined by the Vocational Rehabilitation Service in the student's

community. If you are already enrolled at the university, contact the Vocational Rehabilitation Office in Mays Hall, phone (606) 783-1527.

Army Reserve Officers' Training Corps Subsistence Allowance. For eligible individuals enrolled in advanced military science classes. Consists of a tax-free allowance of \$100 per school month. Contact the Professor of Military Science, MSU, UPO Box 1361, Morehead, KY 40351, telephone (606) 783-2050.

Housing

Housing is provided in 10 residence halls and about 100 married housing units. All residence halls and married student apartments are within less than a 10-minute walk of on-campus classrooms.

Residence hall rooms cost \$460 per semester and married student accommodations range from \$170 to \$195 per month.

Full-time freshmen are required to live in university housing unless they are commuting from home. When you complete the Residence Hall Application and Contract you may indicate the residence hall you wish to live in and who you would like to have for a roommate. If that person agrees to be your roommate, we will try to assign you to the same room. You may request a change of room or roommate after the semester begins.

To apply for university housing, complete the Residence Hall or Married Student Housing Application and return it to the Office of Student Housing with a deposit of \$50 for a residence hall room or \$100 for a married housing apartment.

For applications or more information on housing, contact the Office of Student Housing, Morehead State University, 306 Howell-McDowell Ad. Bldg., Morehead, KY 40351, telephone (606) 783-2060.

Academic Programs and Requirements for Graduation

Academic Programs

Table 1 indicates which subjects are degree (baccalaureate, associate) programs, areas, majors or minors, and whether teacher certification is available. Also listed are pre-professional (transfer) programs and one-year (certificate) programs. You can find specific options or emphases within certain degree programs by referring to the catalog page number of the general subject area.

The following terms will assist you as you read through this section:

Area (area of concentration) is a field of specialization requiring not less than 48 semester hours of credit and can be completed in lieu of a major-minor combination.

Associate degree requires not less than 64 semester hours and can be completed in two years or less.

Bachelor's or baccalaureate degree requires not less than 128 semester hours and can be completed in four years or less.

Certificate is a document indicating that a student has completed a program of not less than 32 semester hours.

Major is a principal field of specialized study in which a student plans to obtain a degree. A major requires not less than 30 semester hours of designated course work and must be accompanied by a minor or second major.

Minor is a secondary field of study of not less than 21 semester hours of designated course work; many minors offer teacher certification.

Program of study is the major-minor combination or area of concentration which the student elects to pursue.

Teacher certification program is a state-approved course of study that leads to certification as a public school teacher.

Table 1. Programs of Study.

Subject	Degree*	Program	Teacher Certification Program	Catalog Page No.
Accounting	BBA	Area, Minor		23
Agriculture	BS	Area, Major, Minor		23
Agriculture Business Technology	AAS	Two-year		25
Art	AB	Area, Major, Minor	Yes	26
Athletic Training		Minor		27
Basic Business	BBA	Area, Minor	Yes	27
Biology	BS	Major, Minor	Yes	28
Broadcast Technology	AAS	Two-year		29
Chemistry	BS	Major, Minor	Yes	29
Child Development		Minor		30
Clerical Studies	Certificate	One-year		30
Communications	AB	Area		30
Communications (Organization Communications)	Minor			31
Construction Technology	AAS	Two-year		31
Corrections	AAA	Two-year		32
	AB	Area, Minor		32
Creative Writing		Minor		39
Data Processing	AAB	Two-year		33
	BBA	Area, Minor		32
Dietetics	BS	Area		33
Drafting and Design Technology	AAS	Two-year		34
Earth Science	BS	Major, Minor	Yes	34
Economics	BBA	Area, Minor		34
Electrical Technology	AAS	Two-year		35
Electronics Technology	AAS	Two-year		35
Elementary Education	AB	Area	Yes	36
Engineering Science	AS	Two-year		37
English	AB	Area, Major, Minor	Yes	37
Environmental Science	BS	Major, Minor		40
Farm Production Technology	AAS	Two-year		41
Fashion Merchandising		Minor		41
	AAS	Two-year		41
Finance	BBA	Area		42
Foodservice Administration	BS	Major, Minor		42
Foodservice Technology	AAS	Two-year		43
French	AB	Major, Minor	Yes	44
Geography	AB	Major, Minor	Yes	44
Geology	BS	Major, Minor		44
Government	AB	Major, Minor	Yes	45
Graphic Arts Technology	AAS	Two-year		45
Health	AB	Major, Minor	Yes	46
History	AB	Major, Minor	Yes	46
Home Economics (General)	BS	Major, Minor		47
(Vocational Education)	BS	Area	Yes	46
Horsemanship		Minor		47
Industrial Education (Exploratory)	BS	Area, Major	Yes	48
(Preparatory)	BS	Area	Yes	48
Industrial Supervision and Management Technology	AAS	Two-year		49
Industrial Technology	BS	Area, Major		49
Integrated Science		Minor		50
Interior Decoration		Minor		51
	AAS	Two-year		50
Interior Design	BS	Major		51
Journalism	AAA	Two-year		52
	AB	Major, Minor	Yes	51
Latin				52
Linguistics		Minor		38
Literature		Minor		39
Machine Tool Technology	AAS	Two-year		53

* Degree abbreviations on page 9

Management	BBA	Area		53
Marketing	BBA	Area, Minor		54
Mathematics	BS	Major, Minor	Yes	54
Mathematics (Statistics)		Minor		55
Mathematics and Computer Programming	BS	Area		55
Medical Technology	BS	Area		55
Military Science		Minor		57
Mining, Reclamation, and Energy Studies	BS	Area, Minor		57
Mining Technology	AAS	Two-year		58
Music	AB	Major, Minor		60
	BM	Area		60
Music Education	BMED	Area	Yes	60
Nursing	BSN	Area, Four-year		61
Office Management	AAB	Two-year		64
Ornamental Horticulture	AAS	Two-year		64
Paralegal Studies	AB	Major		64
Philosophy	AB	Major, Minor		65
Physical Education	AB	Major	Yes	66
Physics	BS	Major, Minor	Yes	66
Power and Fluids Technology	AAS	Two-year		66
Pre-Chiropractic		Transfer		67
Pre-Dentistry		Transfer		67
Pre-Engineering		Transfer		68
Pre-Forestry		Transfer		68
Pre-Law		Transfer		69
Pre-Medicine		Transfer		69
Pre-Optometry		Transfer		69
Pre-Pharmacy		Transfer		70
Pre-Physical Therapy		Transfer		70
Pre-Veterinary Medicine		Transfer		71
Production Management	BBA	Area		71
Psychology	AB	Major, Minor	Yes	72
Radio-Television	AB	Major, Minor		73
Radio-Television Broadcasting	AAA	Two-year		73
Radiologic Technology	AAS	Two-year		74
Real Estate	AAB	Two-year		76
	BBA	Area, Minor		75
Reclamation Technology	BS	Minor		76
	AAS	Two-year		76
Recreation	AB	Major, Minor		76
Religious Studies				77
Russian				77
Safety Education		Minor		77
Secondary Science	BS	Area	Yes	77
Secretarial Studies	Certificate	One-year		81
	AAB	Two-year		81
	BBA	Area, Minor	Yes, Area	80
Small Business Management	AAB	Two-year		81
Social Science	AB	Area	Yes	82
Social Work	AAA	Two-year		83
	BSW	Area		82
Sociology	AB	Major, Minor	Yes	83
Spanish	AB	Major, Minor	Yes	84
Special Education	AB	Major, Minor		84
Special Education (Learning and Behavior Disorders)	AB	Area	Yes	84
Special Education (Trainable Mentally Handicapped)	AB	Area	Yes	85
Speech	AB	Major, Minor	Yes	86
Speech and Theatre	AB	Major	Yes	86
Technical Communication		Minor		39
Textiles and Clothing	BS	Major		87
Theatre	AB	Major, Minor	Yes-Minor	87
University Studies	AA	Two-year		88
	BUS	Four-year		88
Veterinary Technology	AAS	Two-year		88
	BS	Four-Year		88
Vocational Agriculture Education	BS	Area	Yes	89
Vocational Trade and Industrial Education	AAS	Two-year	Yes	89
Welding Technology	AAS	Two-year		90

* Degree abbreviations on page 9

Degree Abbreviations

AA—Associate of Arts
 AAA—Associate of Applied Arts
 AAB—Associate of Applied Business
 AAS—Associate of Applied Science
 AS—Associate of Science
 AB—Bachelor of Arts
 BBA—Bachelor of Business Administration
 BM—Bachelor of Music
 BMED—Bachelor of Music Education
 BS—Bachelor of Science
 BSN—Bachelor of Science in Nursing
 BSW—Bachelor of Social Work
 BUS—Bachelor of University Studies

Requirements for Graduation

To earn an undergraduate degree or certificate, you must meet general university requirements and specific program of study requirements. Program of study requirements are explained in the academic programs section of this catalog. What follows here are the general university requirements for bachelor's degrees, associate degrees, one-year certificates, and second degrees.

Check Sheets

To help you identify the requirements for graduation in the program you are enrolled in, you must file an approved check sheet or an approved teacher education program check sheet with the Office of Registrar no later than the end of your sophomore year (or freshman year if you are in a two-year associate degree program). *Your application for a degree will not be processed until your official check sheet has been filed appropriately.*

To complete a check sheet, you must first secure an unofficial transcript from the Office of Registrar and present it to your advisor, requesting that official area/major/minor forms be prepared. These forms are approved by the necessary department heads and college deans and then sent to the Office of Registrar, where the official check sheet is completed. A copy of the official check sheet is sent to you and your dean.

Should you subsequently change your area/major/minor program, you must follow the same procedure to prepare a new check sheet.

Bachelor's Degree Requirements

You will receive your bachelor's degree after you:

1. Complete a minimum of 128 semester hours of prescribed and elective college credit, 43 semester hours of which must be courses numbered 300 or above. See the academic programs section of this catalog for the specific requirements of your area of concentration or major and minor programs.
2. Earn a minimum cumulative grade-point average of 2.0 on all work completed at the university and on all work completed to satisfy area of concentration or major and minor requirements.
3. Complete an area of concentration of not less than 48 semester hours or a major of not less than 30 semester hours and a minor of not less than 21 semester hours. (While these are minimum requirements, you may also elect to satisfy two

majors or a major and more than one minor.) A major, minor, or area of concentration is not required for the Bachelor of University Studies degree.

4. Complete at least 32 semester hours at Morehead State University, with the last 16 hours preceding graduation earned from MSU. Correspondence courses do not satisfy this requirement.

5. Bachelor of Science degree candidates must complete a minimum of 60 semester hours in science or science-related fields.

6. Complete 42 semester hours of general education courses. (Teacher certification requires 45 semester hours of general education courses, including PSY 154, HLTH 150, one physical education activity course and SPCH 110 or 370. See teacher education requirements.) Some degree programs require specific courses within each general education category. Please refer to your program elsewhere in this catalog for detailed course information. Listed below are the general education course requirements.

Communications and Humanities 15 hours

A total of 9 hours in composition and literature

3 hours—Composition 101 or 103*

3 hours—Composition 102 or 192

3 hours—Literature 202, 211, or 212

*Superior ACT scores in English may qualify students to enroll in ENG 103. Students taking ENG 103 may fulfill the remainder of their general education requirements in English by taking general education literature (ENG 202, 211, or 212) and any other English class (except ENG 101 and 102), regardless of level.

A total of 3 hours in oral communications

Speech 110 or 370

A total of 3 hours from one of the following fields:

Fine Arts 160

Foreign languages

Art 263, 264

Music 161, 162, 261, 361, 362

Theatre 100, 110

Natural and Mathematical Sciences 12 hours

A total of 12 hours with at least 3 hours from each of the following areas:

- I. Mathematics 123 or higher
- II. Biological Science 105 or higher
- III. Chemistry, Geoscience, Physics, or Science 100 or higher
- IV. 3 hours from the three listings above or Data Processing 201 or Philosophy 200, 303, or 306.

Social and Behavioral Sciences 12 hours

A total of 12 hours with at least 3 hours from each of the following clusters:

- I. History 131, 132, 141, 142
Economics 101, 201, 202
- II. Sociology 101, 170, 203, 305, 354
Psychology 154
- III. Government 141, 242, 310
Geography 100, 211, 241, 300

Health 3 hours

A total of 3 hours from either of the following:

Health 150 and one physical education activity class or Health 203

The following courses may not be used to satisfy general education requirements: Pre 100; Workshops 199 through 599; Coop. Study 139, 239, 339, 439 and 539; Practicums; Internships; Special Problems; Field Experiences; Selected Topics; Independent Studies; and Research Projects.

Bachelor's Degree with Secondary Teacher Certification

GENERAL EDUCATION REQUIREMENTS45

ENGLISH9

ENG 101 or 103*

ENG 102 or 192

ENG 202, 211, or 212

*Superior ACT scores in English may qualify students to enroll in ENG 103. Students taking ENG 103 may fulfill the remainder of their general education requirements in English by taking general education literature (ENG 202, 211, or 212) and any other English class (except ENG 101 and 102), regardless of level.

HUMANITIES AND COMMUNICATIONS6

SPCH 110 or 370

Total of 3 hours from:

FNA 160

Foreign Language

ART 263 or 264

MUSH 161, 162, 261, 361, or 362

THEA 100 or 110

SOCIAL SCIENCE AND ECONOMICS15

At least 3 hours from each area:

1. HIST 131, 132, 141, or 142

ECON 101 or 201

2. SOC 101 or 305

PSY 154 (required for teacher certification)

3. GOVT 141, 242, or 310

GEO 100, 211, or 300

SCIENCE AND MATHEMATICS12

At least 3 hours from each area:

1. MATH 123 or higher

2. BIOL 105 or higher

3. SCI 103 or higher, including CHEM, GEOS, PHYS

4. PHIL 200 or 303 or science or math elective

HEALTH AND PHYSICAL EDUCATION3

HLTH 150 (2) and PE activity (1)

Bachelor of University Studies Degree Requirements

You do not have to complete a major, minor, or area of concentration for the Bachelor of University Studies degree. You may take a wide variety of subjects or concentrate all studies beyond the general education requirements in a single discipline. For more information, see your advisor or the dean, College of Arts and Sciences.

You will receive your Bachelor of University Studies degree after you:

1. Complete a minimum of 128 semester hours of prescribed and elective college credit, 43 semester hours of which must be courses numbered 300 or above.

2. Earn a minimum cumulative grade-point average of 2.0 on all work completed at the university.

3. Complete at least 32 semester hours at Morehead State University, with the last 16 hours preceding graduation earned from MSU. Correspondence courses do not satisfy this requirement.

4. Complete 42 semester hours of general education courses. See the general education course requirements for Bachelor's Degree Requirements.

Associate Degree Requirements

You will receive your associate degree after you:

1. Complete a minimum of 64 semester hours of prescribed and elective college credit. See the academic programs section of this catalog for the specific requirements of your associate degree program. A prescribed program is not required for the Associate of University Studies degree.

2. Earn a minimum cumulative grade-point average of 2.0 on all work at the university.

3. Complete at least 16 semester hours at Morehead State University, including one semester preceding graduation. Correspondence courses do not satisfy this requirement.

4. Complete 15 semester hours of general education courses as follows:

Composition I 3 semester hours

Composition II or

Technical Composition 3 semester hours

An additional 9 semester hours from at least three of the following 10 categories:

I. SPCH 110 or 370

II. ENG 202, 211, or 212

III. MATH 123 or higher

IV. BIOL 105 or higher, CHEM, PHYS, GEOS or SCI 100 or higher

V. A. PHIL 200, 303, or 306

B. MATH 123 or higher

C. BIOL 105 or higher, CHEM, PHYS, GEOS or SCI 100 or higher

D. DATA 201

VI. A. SOC 101, 170, 203, 305, or 354

B. PSY 154

VII. A. HIS 131, 132, 141, or 142

A. ECON 101, 201, or 202

VIII. A. GOVT 141, 242, or 310

B. GEO 100, 211, 241, or 300

IX. A. HLTH 150 and one PHED activity course

B. HLTH 203

X. A. FNA 160

B. ART 263 or 264

C. MUSH 161, 162, 261, 361, or 362

D. THEA 100 or 110

E. Foreign language

The following courses may not be used to satisfy general education requirements: Pre 100; Workshops 199 through 599; Cooperative Study 139, 239, 439 and 539; Practicums; Internships; Special Problems; Field Experiences; Selected Topics; Independent Studies; and Research Projects.

Associate of University Studies Degree Requirements

Except for the general education requirements, no prescribed program for study is required for this degree. You may take a wide variety of subjects or concentrate all studies beyond the general education requirements in a single discipline. All other associate degree requirements must be met. (See associate degree requirements above.) For more information, see your advisor or the dean, College of Arts and Sciences.

One-Year Certificate Requirements

You will receive your certificate after you:

1. Complete a minimum of 32 semester hours of prescribed and elective college credit. See the academic programs section of this catalog for the specific requirements of your one-year certificate program.

2. Earn a minimum cumulative grade-point average of 2.0 on all work completed at the university.

3. Complete at least 16 semester hours at Morehead State University, including one semester preceding graduation. Correspondence courses do not satisfy this requirement.

4. Complete six semester hours of general education courses as follows:

Composition I 3 semester hours
An additional 3 semester hours from any area listed under I-X of the Associate Degree Requirements. 3 semester hours

The following courses may not be used to satisfy general education requirements: Pre 100; Workshops 199 through 599; Coop. Study 139, 239, 339, 439 and 539; Practicums; Internships; Special Problems; Field Experiences; Selected Topics; Independent Studies; and Research Projects.

Second Degree Requirements

If you have earned a degree from Morehead State University or any other accredited college or university, you may earn a second bachelor's degree or associate degree by

completing program requirements approved by your major department and the following minimum requirements.

For a second bachelor's degree, you must:

1. Hold an acceptable bachelor's degree from an accredited college or university.

2. Complete a program of study approved by the head of your major department, including at least 32 new semester hours earned at Morehead State University. Of these 32, a minimum of 15 semester hours must be earned to complete a new major or area of concentration.

3. Earn a minimum of 2.0 grade-point average for all course work presented to complete the program, in all course work completed at Morehead State University, and in all course work in a major, minor, or area of concentration.

For a second associate degree, you must:

1. Hold an acceptable associate or higher degree from an accredited college or university.

2. Complete a program of study approved by the head of your department, including at least 16 new semester hours (at least 12 must be earned at Morehead State University). At least nine of the 16 semester hours earned must be in courses in a new prescribed associate degree program.

3. Earn a minimum 2.0 grade-point average for all course work presented to complete the program, in all course work completed at Morehead State University, and all course work in the new prescribed associate program.

Applying for Graduation

An Application for Degree Form (available in the Office of Registrar) should be submitted to the Office of Registrar at least one semester before degree requirements are completed. A list of degree candidates is posted outside the Office of Registrar at least two weeks prior to the end of each term.

Commencement. Commencement is observed three times during the academic year. Ceremonies are held at the end of the fall and spring terms, and at the end of the second summer term.

Academic Regulations and Procedures

Registration

To register, you must be admitted to the university and have a personalized registration packet. Registration packets are automatically available at the registration location for new students who have been accepted to the university.

Early Registration and Orientation

As a new freshman or transfer student enrolling for the fall semester, you are encouraged to participate in the summer early registration and orientation program. The two-day activity provides an overview of the educational opportunities and facilities of the university. You will also meet with an academic advisor and register for the classes you will be taking during the fall.

Orientation programs are also held during the regular fall and spring registration periods. All new freshmen and transfer students, including those that attended the summer orientation, are required to attend the fall program. The

specific dates and times of these activities are mailed to you upon your acceptance to MSU by the Office of Admissions.

Pre-registration

If you are currently enrolled or have been accepted for enrollment, you may pre-register for courses for the following semester or summer term. Complete instructions are published in the term's schedule of classes.

Late Registration

You are encouraged to register according to the timetable in the published class schedule. Late registrants are assessed a \$25 late registration fee and often encounter scheduling difficulties. After the scheduled enrollment period, students registering for the first time must report to the Office of Admissions, 301 Howell-McDowell Ad. Bldg. Returning students begin the registration process in the Office of Registrar, B-101 Ginger Hall.

Change in Schedule

Schedule changes include adding and dropping a course, changing from one course section to another, changing the number of credits involved in any course, or changing from audit to credit or from credit to audit. Any schedule change must be recorded with the registrar on a drop/add form and must be approved by your advisor and the dean of the college in which the class is offered. Deadlines for making schedule changes are published in the current class schedule.

Course Load

To be classified as full time you must enroll for at least 12 semester hours. Audited and correspondence courses do not contribute toward a full-time load. If you wish to schedule 19 or more hours, including audited courses, you must have the approval of your academic advisor and the dean of your college. Six semester hours is the maximum credit you can take during any summer term.

Undergraduates Enrolling for Graduate Credit

If you are in the final semester of undergraduate study and have a grade-point average (g.p.a.) of at least 2.5, you may enroll concurrently in courses for graduate credit according to the following limitations:

Undergraduate Credit Needed for Degree

Completion	Graduate Credit Allowed
9	3
6	6
3	9

If the work for a baccalaureate degree is being completed during a summer term, the combined course load may not exceed six hours. Application forms are available in the Office of Graduate and Special Academic Programs, 201 Ginger Hall. Approval must be granted prior to registration.

Student Classification

Classification is determined by the number of credit hours, including transfer work, successfully completed. The classifications are 0-29 hours, freshman; 30-59 hours, sophomore; 60-89 hours, junior; 90 hours and above, senior.

Course Numbering

Courses numbered less than 100 are developmental courses and may not be used to meet program or general education requirements; credits earned are computed in the total required for graduation. Courses numbered 100-499 are undergraduate courses and may be taken by any classification of student if all prerequisites have been met. Courses numbered 500-599 may be taken for graduate or undergraduate credit. Juniors, seniors, and graduate students may enroll in these courses. Courses numbered 600 and above are graduate level courses and are restricted to graduate students only.

Courses

Repeating Courses

As an undergraduate, you may repeat any course regardless of the grade received or the number of times you have attempted the course. Only the grade received on your last attempt is computed in your overall grade-point average

(g.p.a.). This practice applies to MSU, and is not necessarily the way other institutions might compute your cumulative g.p.a. if you transfer. Students wishing to repeat courses must file a Repeat of Course Option with the Registrar's Office at the time of enrollment in the course to be repeated.

Auditing Courses

To audit a course, you must be admitted to the university and go through the regular registration process. Fees for auditing a course are the same as for courses taken for credit. Regular class attendance is expected of an auditor. Students interested in auditing a course should contact the instructor and discuss course requirements prior to enrolling. Failure to meet course audit requirements may result with a "WY" (audit withdrawal) entered on your transcript.

Any change from audit to credit or credit to audit must be done by the last day to add a class. Deadlines for change of registration status are published in the current Directory of Classes. Courses taken for audit do not contribute toward a full-time load.

Attendance

Prompt and regular attendance in class is expected. Absences for the following reasons are excused, and you will be permitted to make up any work that your instructors consider essential:

1. Illness or health-related problems. In such cases you must present to your instructors an excuse signed by a physician.
2. Representing the university or participating in an authorized field trip. The individual responsible for the activity arranges for the official university excuse.

Instructors are authorized to exercise their discretion in excusing absences for other reasons.

Withdrawals

If you find it necessary to withdraw from school, you must complete a withdrawal form at the Office of the Vice President for Academic Affairs. It is important for your academic record to reflect your official withdrawal; entitled refunds are not made unless your withdrawal is properly recorded.

Grades

Marking System and Scholastic Points

The evaluation of work done by undergraduate students is indicated by letters as follows:

- A—Excellent—Valued at four quality points per semester hour.
- B—Good—Valued at three quality points per semester hour.
- C—Average—Valued at two quality points per semester hour.
- D—Below average—Valued at one quality point per semester hour.
- E—Failure—No semester hours earned and no quality points.
- I—Incomplete—Given only when a relatively small amount of work is not complete because of illness or other reasons satisfactory to the instructor. Incompletes must be made up by mid-term of the following semester (summer school excluded).

- IP— In progress—Course work has not been completed, and the student must register for same course the following semester; no credit hours or quality points (restricted to approved courses).
- K— Credit, pass-fail courses—Semester hours earned; no quality points; not computed in g.p.a.
- N— Failure, pass-fail courses—No semester hours earned; no quality points; computed in g.p.a.
- P— Withdrew from school passing—Not computed in g.p.a.
- F— Withdrew from school failing—Computed in g.p.a. as credits attempted.
- R— Course repeated—Replaces original grade for repeated course; not computed in g.p.a.
- U— Unofficial withdrawal—Computed as credits attempted; computed as zero quality points in g.p.a. calculation.
- W— Withdrew officially—No hours attempted; not computed in g.p.a.
- WY— Withdrawal from audit class—Not computed in g.p.a.
- Y— Audit credit—No hours attempted; not computed in g.p.a.; not applicable to degree program.

Pass-Fail

The purpose of the pass-fail option is to let you explore elective courses outside your area of specialization without engaging in grade competition with students specializing in those courses. Apply at the office of the dean of your first major by the last day to add a class.

Requirements include the following:

1. A minimum 2.5 cumulative g.p.a. on 30 hours earned at MSU. You are eligible as a transfer student with a minimum of 30 hours, if at least 12 hours were earned at MSU, and you have a 2.5 g.p.a. on the work completed at MSU.
2. A maximum of 15 hours may be applied toward the total number of hours required for the bachelor's degree; six hours may be applied toward associate degree requirements.
3. The pass-fail option is applicable only to free elective courses. These include courses not required for your area, major, minor, or general education requirements.
4. Each semester you can use the pass-fail option for one course (for any number of hours of credit), or a combination of courses totalling up to three hours.
5. Hours earned in pass-fail work are added to your total hours passed but do not affect your g.p.a. Any grade of D or above is considered passing and is designated by K. A failing grade is designated by N.
6. You may change course registration status from pass-fail to the conventional letter grading system, and vice versa, during the normal period to add a course.
7. You cannot transfer hours earned under the pass-fail option into any degree program.
8. Your status under the pass-fail option is not identified to instructors. Instructors assign a conventional letter grade and the registrar converts the assigned letter grade to a K or N, as applicable.

Honors

Academic Dean's List. To be eligible, you must have passed at least 12 undergraduate hours and have earned at least a 3.4 g.p.a. for the current semester.

Graduating with Honors. Formal recognition is given to two-year and four-year graduates who have achieved academic excellence. Baccalaureate degree recipients who complete at least 64 semester hours at MSU and earn a cumulative grade-point average of 3.40 to 3.59 graduate *Cum Laude*; 3.60 to 3.89 graduate *Magna Cum Laude*; and 3.90 to 4.00 graduate *Summa Cum Laude*. Associate degree recipients who complete a minimum of 32 semester hours at MSU and earn a cumulative grade-point average of 3.60 or better graduate with distinction. Only work completed at MSU is used in computing grade-point average.

Grade Reports

At the end of each semester and summer term, a final grade report is sent to you at your permanent address. Mid-term grade reports are not mailed, but should be picked up from your advisor. There are no mid-term grade reports for the summer terms.

Transcripts

Request transcripts, either official or unofficial, in writing to the registrar. Requests received by noon are ready for pickup or mailing by noon the next working day. The registrar cannot mail unofficial transcripts; you should pick them up at the registrar's window. Official transcripts are \$2 each; unofficial are 25 cents. Degree recipients are entitled to one official transcript free of charge.

Student Records

In accordance with the Family Educational and Privacy Act and Morehead State University policy, non-directory information from your official cumulative file may not be released without your written consent except to persons engaged in the proper performance of university duties.

You also have the right to inspect, review, and challenge all official educational records, files, and data directly related to you. Request for access to such records must be in writing to the Registrar, MSU, B-101 Ginger Hall.

Questions concerning this law and the university policy may be directed to the Office of Registrar, B-101 Ginger Hall.

Scholastic Standing

Students are eligible to register if they meet the following minimum cumulative scholastic levels:

- I. A 1.6 cumulative grade-point average if 16 or fewer semester hours have been attempted.
- II. A 1.7 cumulative grade-point average if 17-32 semester hours have been attempted.
- III. A 1.8 cumulative grade-point average if 33-48 semester hours have been attempted.
- IV. A 1.9 cumulative grade-point average if 49-67 semester hours have been attempted.
- V. A 2.0 cumulative grade-point average if 68 or more semester hours have been attempted.

Students who do not meet the above standards are given a scholastic warning during their next enrollment. Continued enrollment is permitted as long as measurable scholastic progress is achieved each enrollment period. Students given scholastic warnings are not prohibited from participating

in extracurricular activities. Students on scholastic warning who fail to make academic progress may be suspended from the university.

A suspended student may:

1. Apply for readmission after the lapse of one semester (excluding summer school); or
2. Appeal by petitioning a hearing before the university Committee on Academic Appeals. Requests for appeals are made in the Office of the Vice President for Academic Affairs, 201 Ginger Hall.

A student readmitted under the above conditions who fails to make academic progress may be dismissed from the university.

Academic Bankruptcy

Academic bankruptcy allows undergraduates with an unacceptable grade-point average (g.p.a.) to drop one semester's work from consideration for MSU general education degree or program requirements.

Undergraduate students who are granted bankruptcy status forfeit credit for all courses in the bankrupt semester. The grades and credit hours earned during that semester are disregarded for MSU requirements, but the notation "academic bankruptcy" appears on the transcript beneath the semester's work.

Undergraduate students declared eligible for bankruptcy forfeit credit for only one specified semester of pre-baccalaureate study. Bankruptcy cannot be revoked once it has been granted.

Eligibility. Only hours attempted at Morehead State University are considered for bankruptcy; transfer hours are excluded.

These are the requirements for academic bankruptcy:

1. Students must apply for bankruptcy before completing a baccalaureate degree at Morehead State.
2. They must have attempted at least 48 semester hours at MSU.
3. For the term in question, students must have a g.p.a. of at least 1.0 under their cumulative average for all other hours completed at MSU.

Procedure. To apply for academic bankruptcy, request an Academic Bankruptcy Form in the Office of Registrar. Complete the form, have it signed by your academic advisor and/or department head, and take it to the registrar for verification of eligibility. The registrar will notify you, your advisor, and/or head of your department in writing whether or not you are eligible.

If you are ruled ineligible and want to appeal, request reconsideration at the Office of the Vice President for Academic Affairs, 201 Ginger Hall.

Academic Grievance Procedure

Students with an academic complaint or grade challenge should talk first with the instructor involved, before two

weeks of the following semester have elapsed. If the student is not enrolled for that semester, he or she should send a written complaint to the instructor and a copy to the instructor's department chair. If the complaint is not resolved at that stage, the student has 30 days to file a Student Grievance Form (available in the Office of the Vice President for Academic Affairs).

If the above procedure is impractical or undesirable, the student may complete a Student Grievance Form and return it to the department chair involved. The instructor makes a written response to the student's questions, and within one week of receiving the complaint, the department chair meets with the student, the advisor (if the student wishes), the instructor, and the respective school dean to review and settle the grievance. Records of the meeting and the recommendation by the department chair and dean are forwarded to the vice president for academic affairs and to concerned parties.

If the resulting recommendation is unacceptable to the student, he or she may appeal by petitioning the Student Grievance Committee (or the Graduate Committee if a graduate student) within one week of the previous meeting by writing the vice president for academic affairs. Within two weeks of the appeal application, the Student Grievance Committee reviews the matter and previous recommendations, and if necessary requests additional information or the appearance of parties involved. The committee's decision, which is final, is sent to all concerned parties and is enforced by the vice president for academic affairs.

Anyone may appeal to the president of the university if due process or individual rights have been disregarded.

Sexual Harassment Policy

It is the policy of Morehead State University that no members of the university community may sexually harass another. Any employee or student will be subject to disciplinary action or suspension for violation of this policy.

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when:

1. submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or education;
2. submission to or rejection of such conduct by an individual is used as the basis for academic or employment decisions affecting that individual; and/or
3. such conduct has the purpose or effect of substantially interfering with an individual's academic or professional performance or creating an intimidating, hostile, or offensive employment, educational, or living environment.

Sexual harassment is illegal under both state and federal law. In some cases, it may be susceptible to prosecution under the criminal sexual conduct law.

Academic Support Services

Academic Advisement Program

The university provides a program of academic advisement to assist you with information about specific programs and university procedures, with career guidance and counseling, and with general academic support throughout your college experience.

Advisor Assignment

Although you may not have a permanent advisor assigned when you register, department chairs and support advisors are available to assist you. A permanent advisor is assigned to you during the first two weeks of the semester you enroll. If you have selected a program of study, you must see the chair of that department for the name and office location of your advisor. If you are a general studies student (undecided), you must go to the Academic Services Center, 220 Allie Young Hall. It is your responsibility to make the initial contact with your advisor.

Required Advisor Contacts

You will want to maintain a close relationship by frequent visits with your advisor, but you are required to meet your advisor periodically for at least the following purposes:

1. to obtain your advisor's signature on your trial schedule form prior to registration;
2. to pick up mid-term grade reports;
3. to initiate class changes during the drop/add period;
4. to complete a change of program form if you change your major, minor, or area of concentration, or if you are in general studies and you declare a major, minor, or area of concentration; and
5. to complete a check sheet during your sophomore year (freshman year for associate degree). Transfer students above the sophomore level should schedule such a conference at the end of the first semester at MSU.

Academic Services

The advisement services listed below are available in 220 Allie Young Hall. These services are free and open to all MSU students.

1. Personal, academic, and career counseling
2. Support services for handicapped students
3. Learning lab/tutoring services
4. Special classes in study skills and career planning
5. Re-entry program for students on academic warning
6. Provisional program for transfer and returning students

Academic Assessment Services

The Testing and Evaluation Center provides individual student testing and evaluation on a daily basis in the areas of achievement, aptitude, vocational interest, and personal social adjustment. In concurrence with established policies, the Testing and Evaluation Center also administers all credit by examination programs.

Established testing programs include the ACT, CLEP, GED, GRE, NTE, GMAT, AP, UP, U.S. Civil Service Exams, correspondence exams, and various departmental

proficiency examinations. Literature and brochures describing the different testing programs and their functions are available at the Testing and Evaluation Center, 501 Ginger Hall.

University Counseling Center

The University Counseling Center, located in 322 Allie Young Hall, provides free development and crisis services to all enrolled students. The staff consists of a center director, clinical psychologist, international student advisor, and non-traditional student counselor.

Free services provided to students include individual counseling, relationship enhancement, vocational interest clarification, and outreach programming for non-traditional and international students. Our programs and services provide a critical resource for students as they face stressful adjustments to academic life, personal relationships, and career development. All counseling communication or records are held with strict confidentiality to insure student privacy.

Services are available from 8 a.m. to 4:30 p.m. Monday through Friday with evening appointments scheduled as needed.

Personal/Social Adjustment Counseling. The years invested in college are a time of growing maturity, challenges, new relationships, many changes, and indecision. A few students move through this time in a calm, relaxed manner. There are many others who during this time have periods of trauma, crisis, stress, and confusion. At such times individual or group counseling can assist the student in dealing with the stresses and in clarifying the issues so that productive choices can be made.

Marital/Relationship Counseling. Marital and other interpersonal relationships can be readily affected by the many stresses that are often encountered during a student's academic career. The UCC staff have specific training in the areas of marital and relationship counseling and offer training in methods of marital/relationship enrichment and enhancement for distressed and non-distressed couples.

Career Counseling. Nationwide research indicates that two-thirds of the students entering college can benefit from career counseling. This service provides students with an opportunity for self-exploration of their academic strengths, interests, abilities, values, and personality. With an increased understanding based on self-awareness, students may examine how their individual outlook fits with the world of work through vocational inventories. Based on information gained from these individual measures of career interests, students are assisted in career life-planning and decision-making regarding the best educational path for their particular outlook.

Groups and Workshops. In addition to group counseling, various workshops and special programs are periodically scheduled to address specific needs of the university community. Topics in the past have included assertion training, stress management, depression, vocational planning, weight loss instruction, and dealing with roommate conflicts.

Non-Traditional Student Counseling. The counselor for non-traditional students is available to all undergraduate students who are 23 years of age or older. Our office provides

assistance with academic and personal pressures frequently encountered by students dealing with conflicts among courses, work, and family responsibilities.

The non-traditional counselor serves as an advocate for the increasing number of adult students (now over 1,100 at MSU). The counselor also helps link these students to academic and other campus resources geared to concerns such as improving study habits, time management, or focusing on family, career, or financial needs.

Director of Minority Student Affairs. The director provides assistance and support to prospective and enrolled Black students at MSU. Coordination of campus activities is conducted throughout the year to insure provision of educational, cultural, and social programs for minority students. Minority student adjustment and retention is promoted by assisting student leadership and advising individuals and organizations on student life/personal development goals. Through these efforts the minority advisor provides cultural enrichment and academic support for minority students while increasing cross-cultural understanding for the total campus community.

International Student Services. The International Student Advisor provides assistance and support during foreign student entry to MSU, coordination and documentation of compliance with immigration regulations, and cross-cultural programs for international education. *International student must consult the International Advisor when:*

1. applying to add, extend, or change visas,
2. transferring to or from the university,
3. dropping classes below a full-time enrollment,
4. leaving the university for any reason,
5. accepting part-time employment for the first time or engaging in summer employment,
6. changing residence,
7. seeking practical training or its extension, and
8. obtaining Social Security forms.

The international advisor is available in two offices: 337 Rader Hall (mornings) and 308 Allie Young Hall (afternoons) and/or by appointment, including weekends.

Career Planning and Placement

The Office of Career Planning and Placement, 207 Allie Young Hall, provides a full range of career-related services for students and alumni. Services include career counseling and testing, workshops for skill development in resume writing, interviewing, and job search strategies, as well as vacancy listings, maintenance of credential files, and on-campus interviews with employers. Students are encouraged to visit the office early in their freshman year to become acquainted with the services provided.

Alumni Association

The Alumni Association is an organization composed of graduates and friends of the university and is designed to stimulate interest in the university and its welfare. Active membership in the association is available to all graduates of the university who make a contribution to the University Fund. Associate membership is available to parents of students and friends of the university and also is based on a gift to the University Fund. All graduates receive publications of the Alumni Association.

Camden-Carroll Library

The Camden-Carroll Library is the informational center of Morehead State University. The library provides many resources and services to aid students in their course work, research, and personal enrichment. To assist students in using the library's facilities, a staff of professional librarians and support personnel are available in an atmosphere that is both pleasant and efficient.

The library holdings consist of an extensive reference collection and a constantly expanding collection of print and non-print media. These include a large periodical collection in print, on microfiche and microfilm, and a film lending library with films for university and regional use. Camden-Carroll Library is also a selective depository for United States Government Document Publications which includes *Congressional Record* and publications from government funded research. On the fifth floor of the library tower are several special collections of regional writers and regional subject matter. These include the Jesse Stuart Room, the James Still Room, and the Roger Barbour Room. The fifth floor is also the location of the Rare Book Room and the University Archives.

Other services are available to facilitate students' studies and research activity. Among these is the Library On-Line Information Service (LOIS). This service provides access to many computerized bibliographic networks, including the Bibliographic Retrieval Service, Inc. (BRS), DIALOG, and Wilsonline. Also available is the Education Resources Information Center (ERIC) which is an excellent computerized index to resources in education. The Learning Resource Center provides students with audio-visual equipment and curriculum material for grades K through 12. The library also provides hardwired terminals with access to the university computer, as well as a microcomputer lab with software application packages. Typewriters, photocopy facilities, and graphic arts services are also available for students. Students may rent lockers for book storage.

Information about the library and its resources may be obtained by asking any library staff member and through booklets and guides to the library which are available at the circulation desk. Formal classes in library use and library workshops and orientations are conducted by library staff members to assist students in using the library's many resources. Specialized tours may be scheduled by inquiring at the circulation desk. An open stack policy is maintained in the library with staff members at service/information desks throughout the library to assist in locating and using materials.

Students, teachers, and community members with valid identification are allowed to check out books and materials. Loan periods are dependent upon the type of material checked out.

The library is open on a regular basis to serve students' needs. The hours are as follows:

- 8 a.m. to 10 p.m. Monday through Thursday
- 8 a.m. to 6 p.m. Friday 9 a.m. to 4:30 p.m. Saturday
- 2 p.m. to 10 p.m. Sunday

A late night study area is open 9:30 p.m. to 12:30 a.m. Sunday through Thursday on the ground floor of the library. Hours are subject to change during vacation periods.

Academic Opportunities

Cooperative Education

Cooperative Education provides supervised work experience in educational, vocational, governmental, and cultural environments outside the university. You are awarded academic credit and remuneration for each work experience. Semesters of on-campus course work are alternated with semesters of salaried employment in an environment closely associated with your program of study. For additional information, contact your advisor or the chair of your department.

Television Courses

Each fall and spring semester a number of undergraduate courses are offered for credit by television. These courses may be applied toward the general education requirements and/or program of study requirements. Tuition and admission requirements are the same as for on-campus enrollment. For an application contact the Office of Continuing Education, 801 Ginger Hall.

Army ROTC

The Army ROTC program allows students to earn commissions as second lieutenants in the U.S. Army. The basic course, taken in the freshman and sophomore years, does not require military service after graduation. The advanced course, offered the junior and senior years, is for those who choose to continue in the program and receive commissions after earning a degree. There is a six-week summer camp between the junior and senior years. For information about Army ROTC, contact the professor of military science, (606) 783-2050.

Correspondence Courses

Correspondence courses allow students to complete college credit outside the formal classroom. Admission to the program does not require, nor does it constitute, formal admission to the university. Anyone, regardless of previous training

or educational experience, is eligible to apply. Tuition is the same as for on-campus courses. For an application and complete details contact the Correspondence Study Program, 801 Ginger Hall.

Honors Program

The Honors Program is an academically-enriched program that provides highly motivated students with small classes, direct and personal contact with faculty members, and greater curriculum flexibility.

Freshmen and sophomores take a sequence of honors classes which fulfill general education requirements, upper division students participate in at least two honors seminars, and seniors must undertake an independent study project in their major field.

Members of the Honors Program receive special opportunities and recognitions. They may enroll for additional credit hours each semester; have their major field content requirements altered for greater flexibility; attend classes as they choose (except for some participatory classes); receive special library privileges, including a separate study room and free computer search and inter-library loans; participate in cultural enrichment trips to concerts, plays, and museums in surrounding cities; may take up to four free CLEP examinations; may participate in a yearly "seminar week" with students from other state Honors Programs; may help faculty in their research projects; and are recognized during Academic Awards Convocation and Commencement. Participation is noted on the academic transcript.

High school students who have composite ACT examination scores of 24 or above and a strong high school academic record are eligible. College students, including transfer and second semester freshmen who have a cumulative 3.5 grade-point average, are invited to become members. Once admitted to the program, a student must maintain a 3.0 grade-point average. The Honors Program awards 10 scholarships each year to entering freshmen. If you would like more information or admission forms, contact the Honors Program Director, Morehead State University, UPO Box 697, Morehead, Ky. 40351.

Academic and Honor Organizations

Numerous organizations offer opportunities for academic enrichment outside the classroom. As a member you may participate in informal discussions with faculty and professionals, field trips, and on-campus programs. Further information is available by contacting the specific organizations listed below.

Academic

Accounting Club—UPO 1041
 Agriculture Club—UPO 1296
 Alpha Lambda Pi (Paralegal)—UPO 2409
 Alpha Tau Sigma (veterinary technology)—UPO 1044
 Art Students League—UPO 1224
 Brotherhood of University Guitarists—UPO 1404
 Environmental Studies Club—UPO 1047
 Epsilon Lambda Sigma (English)—UPO 2429
 Food Service/Dietetics Organization—UPO 954
 Future Interior Designers Organization—UPO 1029
 Geologic Society—UPO 1372
 International Trombone Association—UPO 1266
 International Trumpet Guild—UPO 1038
 Keyboard Club—UPO 1390
 Medical Technology Society—UPO 1055
 Mining Society—UPO 2415
 National Association of Jazz Educators—UPO 1374
 Percussive Arts Society—UPO 1034
 Phi Alpha Delta (pre-law)—UPO 1273
 Phi Beta Lambda (business)—UPO 1039
 Phi Mu Alpha (music)—UPO 1381

Political Science Club—UPO 1385
 Prae Medicorum (pre-medicine)—UPO 1386
 Pre-Veterinary Medicine Club—UPO 1031
 Rho Epsilon (real estate)—UPO 1017
 Sigma Alpha Iota (music)—UPO 1392
 Sigma Tau Epsilon (industrial technology)—UPO 1267
 Student Association of Social Workers—UPO 1396
 Student Correctional Association—UPO 1398
 Student Home Economics Association—UPO 1399
 Student Music Educators National Conference—UPO 1414
 Student National Education Association—UPO 1371
 Student Nurses Association—UPO 1400
 Tubists Universal Brotherhood Association—UPO 1394
 Welding Society—UPO 2424

Honor

Alpha Delta Mu (social work)—UPO 992
 Alpha Epsilon Rho (broadcasting)—UPO 1043
 Blue Key (juniors and seniors)—UPO 1243
 Cardinal Key (juniors and seniors)—UPO 1223
 Delta Tau Alpha (agriculture)—UPO 1053
 Gamma Beta Phi Society (scholastic and service)—UPO 1334
 Kappa Delta Pi (education)—UPO 1035
 Kappa Omicron Phi (home economics)—UPO 1052
 Phi Kappa Phi (interdisciplinary)—UPO 816
 Pi Gamma Mu (social sciences)—UPO 1261
 Scabbard and Blade—UPO 1050
 Sigma Delta Pi (Spanish)—CB 103
 Theta Alpha Phi (theatre)—UPO 1382

Teacher Education Program and Professional Laboratory Experiences

The coordinator of professional laboratory experiences is for responsible administration and supervision of all professional laboratory experiences associated with the College of Professional Studies.

Teacher education is a field-based program that provides extensive laboratory experiences with children in area schools. Field experiences assist the university student in understanding the function of public school teaching and practical experiences in methodology. Each professional education course contains a required clinical and field experience component. Placements are made in cooperation with instructors and Teacher Education Office, 301 Ginger Hall.

All education majors are required to complete 150 hours of clinical and field experiences prior to student teaching. One-half of these shall be devoted to experiences in the public school (field experiences).

Teacher Education Program

Admission and Retention

Students seeking teacher certification must apply for and be admitted to the teacher education program. Students will be required to meet admission standards concurrent with their application to teacher education. They must also select areas of concentration, major(s) and/or minor(s) that are certifiable. Psychology and sociology majors must present a

teaching minor in order to enter the teacher education program.

Students in teacher education must complete 45 hours of general education requirements, which shall include PSY 154, HLTH 150, one physical education activity course, and SPCH 110 or 370. Students should apply for admission to the teacher education program during the semester in which they are enrolled in Human Growth and Development. Failure to apply at the sophomore level may result in an extended program.

Criteria for Admission

1. Formal application is filed during the semester in which the student is enrolling in Human Growth and Development.
2. Completion of 45 semester hours for secondary students; 30 semester hours for elementary and special education students.
3. An unofficial copy of the student's transcript with a minimum cumulative grade-point average of 2.50 on a 4.0 scale must accompany the application.
4. Three recommendations from instructors familiar with applicant's qualifications. Transfer students may submit recommendations from instructors at their previous institution.
5. Successful completion of speech, hearing, and vision screening test.

6. Successful completion of Comprehensive Test of Basic Skills with minimum score of 12.5 on each section—reading, language arts, mathematics, and spelling.
7. Successful completion of prerequisite courses (Foundations of Education, Human Growth and Development, PSY 154, and SPCH 110 or 370) and prescribed pre-professional laboratory experiences.
8. Demonstrated proficiency in oral and written communication. (Successful completion of English Composition I and II; or Composition III, or Technical Composition, where applicable. Minimum grade of "C" in each course.)
9. ACT scores on file in the Testing Center.
10. Demonstrated moral, ethical, and social behavior commensurate with standards of the school and community-at-large.
11. Recommendation by College Admission Interview Committee. Transfer students who were recently admitted to a teacher education program at another Kentucky institution may provide evidence of their admission in lieu of the interview provided they are applying for admission to the same program and major. Transfer students must meet the requirements listed above.

Transfer students and graduate students seeking initial certification must apply immediately for admission to the program and meet criteria outlined above.

Transfer of appropriate education courses from another institution is contingent upon successful completion of required field experiences in the public schools and clinical experiences on campus. Documentation is required. Transfer or substitution of education courses shall be approved by the Teacher Education Office, 301 Ginger Hall.

Education courses completed more than five years prior to readmission in a provisional certification program shall be reviewed for program needs or deficiencies. The review shall be conducted by the Department of Education. Readmission to provisional certification programs is contingent upon fulfilling current teacher education program admission requirements.

Students not attaining the minimum CTBS score(s) should complete an appropriate tutoring program in the Learning Lab. Applicants may take the CTBS once each semester for a maximum of three times.

Permission to register for restricted courses may be given by the Teacher Education Office for one semester pending completion of admission requirements. The advisor must recommend that permission be granted.

Retention in the teacher education program is dependent upon the maintenance of the levels of performance required for admission. Any student denied admission to, or suspended from, the teacher education program may reapply for admission once each semester.

Admission Procedures

Step 1—Enroll in Foundations of Education (EDF 207—3 hours).

- A. Complete Comprehensive Test of Basic Skills in Testing Center, 501 Ginger Hall.
- B. File ACT scores in Testing Center.
- C. Complete assigned pre-student teaching experiences in a public school.

Step 2—Enroll in Human Growth and Development (EDF 211—3 hours).

- A. Complete formal application for admission to teacher education program.
- B. Obtain three recommendations from instructors familiar with applicant's qualifications.
- C. Complete speech, hearing, and vision screening.
- D. Obtain unofficial copy of transcript from the Office of Registrar to accompany completed application.

Step 3—The student takes the completed application to the chairman of the Admissions Interview Committee of their college and makes arrangements for an individual interview.

Step 4—The Admissions Interview Committee chairman will return all materials to the Teacher Education Office, 301 Ginger Hall, for final review by the university Teacher Education Council.

Courses for Which Admission to the Teacher Education Program is a Prerequisite

AGR 580—Methods of Teaching Vocational Agriculture
 AGR 582—Adult and Young Farmer Education
 AGR 584—Teaching Vocational Agriculture
 AGR 586—Planning Programs in Vocational Agriculture
 AGR 588—Curriculum Development and Content Selections
 AGR 592—Supervision in Agriculture
 ART 300—Elementary Materials and Methods
 ART 321—Materials and Methods of Secondary Art
 BSED 375—Teaching Typewriting and Office Practice
 BSED 376—Teaching Shorthand and Transcription
 BSED 475—Teaching Accounting and Basic Business
 EDEC 529—Practicum in Early Childhood Education
 EDEL 321—Teaching of Arithmetic
 EDEL 322—Teaching Social Studies in the Elementary School
 EDEL 323—Language Arts for the Elementary School
 EDEL 333—Fundamentals of Elementary Education
 EDEL 336—Foundations of Reading
 EDEL 337—Reading Strategies for the Elementary Teacher
 EDEL 425—Supervised Teaching Practicum (Elementary)
 EDSE 312—Teaching Skills and Media
 EDSE 415—Teacher in Today's Schools
 EDSE 416—Student Teaching
 EDSE 576—Reading in the Secondary School
 EDSP 435—Supervised Teaching Practicum (LBD)
 EDSP 436—Supervised Teaching Practicum (TMH)
 ENG 500—Studies in English for Teachers
 ENG 502—Non-Print Literary Materials for Teachers
 FRN 405—Linguistics and Language Teaching
 GER 405—Linguistics and Language Teaching
 HEC 470—Methods of Teaching Vocational Home Economics
 HEC 573—Curriculum Development in Home Economics
 HIS 375—The Teaching of Social Studies
 HLTH 300—Health in the Elementary School
 HLTH 304—Health in the Secondary School
 IET 390—Principles of Industrial Education
 IET 392—Technical Curriculum and Media Development
 IET 393—Methods in Vocational Industrial Education
 IET 394—Student Teaching in Vocational Industrial Education
 IET 475—Teaching Industrial Arts
 IET 478—Supervised Teaching Practicum in Industrial Education—
 Orientation and Exploration Levels
 MATH 373—Principles and Techniques of Mathematics
 MUSE 325—Materials and Methods for Elementary Grades
 MUSE 375—Vocal Materials and Methods
 MUSE 376—Instrumental Materials and Methods

PHED 300—Physical Education in the Elementary School
 PHED 303—Physical Education in the Secondary School
 SCI 490—Science for the Elementary Teacher
 SCI 591—Science for the Middle School Teacher
 SCI 592—Science for the Secondary Teacher
 SPA 405—Linguistics and Language Teaching

Professional Laboratory Experiences

Application for student teaching practicums must be filed early in the semester immediately preceding the semester in which the student expects to enroll in the professional semester. Student teaching application forms are obtained from the coordinator of professional laboratory experiences, Room 304, Ginger Hall. To be eligible for the professional semester, the student must have completed the following requirements:

1. Admission to and good standing in teacher education program.
2. Completion of prerequisite courses in sequence of professional education. (Secondary certification program—EDF 207, 211, 311, EDSE 312, and EDSP 332. Elementary certification program—EDF 207 and 211, EDEL 301, 321, 322, 323, 336 or 337, EDSP 230. LBD and TMH certification program—elementary education requirements plus EDSP 231 (TMH only), 350, 537 or 547, 550, 551, 553, 555 or 556, and 557.)
3. Successfully completed pre-student teaching laboratory experiences associated with courses in the professional education sequence. Transfer or substitution of required education courses is dependent upon applicant completing appropriate pre-laboratory experiences. Documentation is required.
4. Present minimum grade-point standing of 2.50 on a 4.0 scale on courses completed at Morehead State University.
5. Present minimum grade-point standing of 2.5 on 4.0 scale on all course work completed in area of concentration, major(s), and minor(s).
6. Have completed a minimum of 90 semester hours.
7. Present unofficial copy of check sheet depicting approved major for teacher certification. (Psychology and sociology majors must also present a teaching minor.)
8. Completed 75 percent of course requirements in area of concentration or major teaching field (to include required methods courses.)
9. Have a minimum of one semester residence at Morehead State University.
10. Must have a satisfactory recommendation of the teacher education committee of the college in which the student is enrolled regarding personal, social, and ethical fitness for teaching.
11. Must have approval of university Teacher Education Council.
12. Must have teaching minor completed in order to student teach in that field.

Successful completion of the National Teachers Examination is required. Expense for this examination is to be borne by the student.

Courses for which application must be made with coordinator of professional laboratory experiences one semester in advance include:

AGR 584—Teaching Vocational Agriculture
 EDEL 425—Supervised Teaching Practicum (Elementary)
 EDEC 529—Practicum in Early Childhood Education
 EDSE 416—Student Teaching
 EDSP 435—Supervised Teaching Practicum (LBD)
 EDSP 436—Supervised Teaching Practicum (TMH)
 EDSP 675—Practicum in Special Education
 EDGC 669—Practicum in Guidance and Counseling
 IET 478—Supervised Teaching Practicum in Industrial Education—Orientation and Exploration Levels
 REC 290—Field Experience I
 REC 490—Field Experience II
 REC 477—Recreation Internship

Recommendation for Certification

Regulations of the Kentucky Department of Education stipulate that the applicant for a teacher's certificate must be recommended by the institution offering the teacher preparation program. The dean, College of Professional Studies, is the official designated to recommend for certification graduates of Morehead State University. Recommendation for provisional certification will be limited to those students completing their professional semester at Morehead State University.

Application for the appropriate certificate should be completed early in the semester prior to graduation. Application forms may be obtained in the Office of the Registrar, Ginger Hall.

All teacher applicants for initial certification in Kentucky shall complete the National Teachers Examinations for communication skill, general knowledge, professional knowledge, and the appropriate specialty test, meeting the standards set by the Kentucky State Department of Education (704 KAR 20:305).

Secondary Education

The primary role of secondary education is to serve various departments of the university by offering a professional education curriculum leading to certification of teachers for secondary schools. Students should consult with their advisors in their academic majors for additional program requirements.

Requirements for Certification in Secondary Education

	Sem. Hrs.
PROFESSIONAL EDUCATION COURSES	29
EDF 207—Foundations of Education	3
EDF 211—Human Growth and Development	3
EDF 311—Learning Theories in the Classroom	3
EDSE 312—Teaching Skills and Media	3
EDSP 332—Teaching the Exceptional Student	2
PROFESSIONAL SEMESTER	15
EDSE 415—Teacher in Today's Schools	3
EDSE 416—Student Teaching	12

Table 2. Who to see

For	Who	Where	Phone
Absences	Your college dean		
Academic bankruptcy	Your advisor		
Academic probation	Your advisor		
Admission	Office of Admissions	301 HM	2000
Advisor assignment	Dean of your college or department chair		
Change of major	Your advisor		
Change of program	Your advisor		
Change of schedule	Your advisor		
Check sheets	Your advisor		
Cooperative Education	Your department chair		
Correspondence courses	Extended Campus Programs	201 GH	2002
Counseling services	University Counseling Center	322 AY	2123
Credit by examination	Testing and Evaluation Center	501A GH	2526
Drop/Add	Your advisor		
Extracurricular activities	Student Development	204 HM	2070
Fees	Business Office	202 HM	2119
Field Career Experiences	Your department chair	201 GH	2002
Financial aid	Financial Aid	305 HM	2011
Grades	Your advisor		
Graduation application	Office of Registrar	101B GH	2008
Honors Program	John Kleber	338 RA	2090
Housing	Housing	302 HM	2060
International student advising	University Counseling Services	308 AY	2123
Learning Lab	Betty Moran	220 AY	2005
Library	Library	CCL	2250
Loans	Financial Aid Office	305 HM	2011
Minority Student Advisor	Jerry Gore	329 AY	2123
Non-traditional Student			
Counseling	Anna Mae Riggle	331 AY	2123
Placement Services	Career Planning and Placement	321 AY	2233
Pre-registration	Your advisor		
Professional Lab. Experiences	John Payne	304 GH	2891
Records, access to	Office of Registrar	205 HM	2008
Registration	Your advisor		
Repeating a course	Office of Registrar	101B GH	
Residency reclassification	Office of Admissions	301 HM	2000
ROTC	Military Science	308 BA	2050
Scholarships	Office of Admissions	301 HM	2000
Special Services	Betty Moran	220 AY	2005
Counseling	Staff member	220 AY	2005
Learning Lab	Betty Moran	220 AY	2005
Tutoring	Janet Bignon	220 AY	2005
Student teaching	John Payne	304 GH	2891
Testing	Steve Taylor	501A GH	2526
Textbooks	Bill Sharp	ADUC	2081
Transcripts	Registrar window	104B GH	2008
Transfer of credits	Office of Registrar	104B GH	2008
Tutoring	Janet Bignon	220 AY	2005
TV courses	Extended Campus Programs	220 AY	2002
Veterans affairs	Financial Aid	305 HM	2888
Withdrawals		101B GH	
From class	Your advisor		
From school	Academic Affairs	201 GH	2002
Writing Lab	Special Services	220 AY	2005

Key to abbreviations: ADUC—Adron Doran University Center; AY—Allie Young Hall; BA—Button Auditorium; BH—Breckinridge Hall; CCL—Camden-Carroll Library; CHC—Caudill Health Clinic; GH—Ginger Hall; HM—Howell-McDowell Administration Bldg.; RA—Rader Hall.

Abbreviations (Course Prefixes)

ACCT	Accounting	MFT	Manufacturing Technology
AGR	Agriculture	MIN	Mining Technology
AHS	Allied Health Sciences	MKT	Marketing
ART	Art	MNGT	Management
BIOL	Biology	MS	Military Science
CHEM	Chemistry	MSCI	Marine Science
COMM	Communications	MUSC	Music Conducting
CON	Construction Technology	MUSE	Music Education
COR	Corrections	MUSG	Class Applied Music
DATA	Data Processing	MUSH	Music History & Literature
ECON	Economics	MUSM	Music Ensembles
EDAD	Education Administration	MUSP	Private Applied Music
EDAH	Adult and Higher Education	MUST	Music Theory
EDEC	Early Childhood Education	MUSW	Music Research
EDEL	Elementary Education	NUR	Nursing
EDF	Education Foundations	OADM	Office Administration
EDGC	Guidance and Counseling	PDI	Personal Development Institute
EDSE	Secondary Education	PHED	Physical Education
EDSP	Special Education	PHIL	Philosophy
EDUC	Professional Education	PHYS	Physics
EET	Electricity-Electronics Technology	PSY	Psychology
ENG	English	RAD	Radiologic Technology
FIN	Finance	RCL	Reclamation Technology
FNA	Fine Arts	REAL	Real Estate
FRN	French	REC	Recreation
GCT	Graphics Communications Technology	REL	Religion
GEO	Geography	ROB	Robotics
GEOS	Geoscience	R-TV	Radio-Television
GER	German	RUS	Russian
GOVT	Government and Public Affairs	SCI	Science
HEC	Home Economics	SOC	Sociology
HIS	History	SPA	Spanish
HLTH	Health	SPCH	Speech
IET	Industrial Education Technology	SWK	Social Work
JOUR	Journalism	THEA	Theatre
LAT	Latin	VET	Veterinary Technology
LSIM	Library Science and Instructional Media	VOC	Vocational Education
MATH	Mathematics	WEL	Welding Technology

Accounting

(606) 783-2152, 783-2174
222 Combs Building
School of Business and Economics
College of Professional Studies

Faculty—J. Alcorn, J. Graham, J. Osborne, G. Van Meter, K. Williams

Bachelor of Business Administration

Accounting Option

General Education Requirements

The following specific courses must be included in the 42 hour general education component (see general education requirements)

	Sem. Hrs.
SPCH 370—Business and Professional Speech	3
MATH 160—Mathematics for Business and Economics	3
MATH 354—Business Statistics	3
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3

Core Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
ECON 350—Microeconomic Theory	3
FIN 360—Business Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
MNGT 306—Production Management	3
MNGT 472—Business Policies and Problems	3
OADM 321—Business Communications	3
	33

Program Requirements

	Sem. Hrs.
BBA Core	33
ACCT 384—Intermediate Accounting I	3
ACCT 385—Intermediate Accounting II	3
ACCT 387—Income Tax	3
ACCT 390—Cost Accounting I	3
ACCT 483—Auditing	3
Approved accounting electives	6
	54

Bachelor of Science

Minor

Students selecting programs with accounting minors should first consult with advisors in their major areas.

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
ACCT 384—Intermediate Accounting I	3
ACCT 385—Intermediate Accounting II	3

ACCT 390—Cost Accounting I	3
Approved accounting electives	6
	21

Course descriptions begin on page 91

Agriculture

(606) 783-2662
332 Reed Hall
Department of Agriculture and Natural Resources
College of Applied Sciences and Technology

Faculty—J. Bendixen, G. Carswell, C. Derrickson (dean), J. Martin, T. McMillan, M. Norris, B. Rogers, J. Willard (chair), R. Wolfe

Bachelor of Science

Area of Concentration

The student must complete a minimum of 54 semester hours in the area of concentration in agriculture, of which 26 semester hours are the following core agriculture course requirements and 28 semester hours are approved course electives selected from within one of the following six options: agriculture business, agriculture economics, agronomy, animal science, general agriculture, or horticulture. General course electives may also be taken in agriculture and related areas by students wishing greater depth in an agriculture field.

Core Requirements

	Sem. Hrs.
Required Courses in Agriculture	26
AGR 101—General Agriculture	1
AGR 133—Farm Livestock Production	3
AGR 180—Elementary Field Crops	3
AGR 203—Agriculture Economics	3
AGR 211—Soils	3
AGR 215—Horticulture	3
AGR 251—Introduction to Agriculture Mechanics	3
AGR 301—Farm Management	3
AGR 316—Feeds and Feeding	3
AGR 471—Seminar	1
Additional Course Requirements	8
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Laboratory	1

Agriculture Business Option

Students must complete the required core courses in the area of concentration in agriculture, ACCT 281—Principles of Accounting I (three semester hours), and 28 semester hours in agriculture and business, including a minimum of nine hours in business. Electives must be selected from at least three of the following groups:

Group I	Sem. Hrs.
AGR 302—Agriculture Finance	3
FIN 252—Mathematics of Finance	3
FIN 560—Financial Markets	3
FIN 360—Business Finance	3
FIN 264—Personal Finance	3
Group II	
OADM 363—Office Management	3
MNGT 301—Principles of Management	3
MNGT 311—Personnel Management	3
Group III	
MKT 350—Salesmanship	3
MKT 450—Consumer Behavior	3
MKT 451—Retail Merchandising	3
MKT 555—Advertising	3
Group IV	
MNGT 261—Business Law I	3
MNGT 461—Business Law II	3
Group V	
AGR 303—Land Economics	3
ACCT 282—Principles of Accounting II	3
FIN 407—Principles of Insurance	3
ACCT 387—Income Tax	3

Agriculture Economics Option

Students who select this option must complete the required courses in the area of concentration in agriculture and 28 semester hours of requirements and electives in agriculture and economics. Requirements and electives are listed below:

Required courses	Sem. Hrs.
ECON 202—Principles of Economics II	3
ECON 350—Microeconomics Theory	3
ECON 551—Macroeconomics Theory	3
Approved electives	
AGR 302—Agriculture Finance	3
AGR 303—Land Economics	3
AGR 386—Introductory Agricultural Policy	3
ECON 510—History and Economic Thought	3
FIN 342—Money and Banking	3
FIN 343—Investments	3
ECON 547—International Economics	3
MATH 354—Business Statistics	3

Agronomy Option

Students must complete the required core courses in the area of concentration in agriculture and 28 semester hours of approved electives selected from the following list:

	Sem. Hrs.
AGR 205—Farm Records	3
AGR 303—Land Economics	3
AGR 308—Weed Control	3
AGR 311—Soil Conservation	3
AGR 312—Soil Fertility and Fertilizers	3
AGR 350—Farm Power and Machinery Management	3
AGR 384—Forage Crops	3
BIOL 215—General Botany	4
BIOL 334—Entomology	3
BIOL 513—Plant Physiology	3
BIOL 514—Plant Pathology	3
BIOL 550—Plant Anatomy	3
CHEM 326, 326A—Organic Chemistry I and Laboratory	4
CHEM 327, 327A—Organic Chemistry II and Laboratory	4

Animal Science Option

Students complete the required core courses in the area of

concentration in agriculture and 28 semester hours of approved electives selected from the following list:

	Sem. Hrs.
AGR 108—Elementary Horsemanship (Stockseat)	1
AGR 109—Elementary Horsemanship (Saddle Seat)	1
AGR 110—Elementary Horsemanship (Hunt Seat)	1
AGR 118—Intermediate Horsemanship (Stockseat)	1
AGR 119—Intermediate Horsemanship (Saddle Seat)	1
AGR 120—Intermediate Horsemanship (Hunt Seat)	1
AGR 121—Equitation	3
AGR 231—Livestock Judging	3
AGR 242—Light Horse Husbandry	3
AGR 245—Horseshoeing	3
AGR 330—Livestock Improvement	3
AGR 331—Advanced Livestock Judging	3
AGR 332—Advanced Horsemanship	3
AGR 335—Equitation Teaching	3
AGR 336—Dairy Production	3
AGR 337—Poultry Production	3
AGR 342—Horse Production	3
AGR 343—Beef Production	3
AGR 344—Swine Production	3
AGR 345—Sheep Production	3
AGR 480—Equine Breeding and Reproduction	3
AGR 515—Animal Nutrition	3

General Agriculture Option

Students must complete the required core courses in the area of concentration in agriculture and 28 semester hours of approved electives from the list below. The minimum number of semester hours is shown for each of five fields.

	Sem. Hrs.
(1)—Agriculture economics	3
AGR 205—Farm Records	3
AGR 302—Agriculture Finance	3
AGR 303—Land Economics	3
AGR 305—Marketing of Farm Products	3
AGR 386—Introductory Agriculture Policy	3
(2)—Agricultural mechanics	3
AGR 350—Farm Power and Machinery Management	3
(3)—Animal science	6
AGR 231—Livestock Judging	3
AGR 242—Light Horse Husbandry	3
AGR 330—Livestock Improvement	3
AGR 331—Advanced Livestock Judging	3
AGR 336—Dairy Production	3
AGR 337—Poultry Production	3
AGR 342—Horse Production	3
AGR 343—Beef Production	3
AGR 344—Swine Production	3
AGR 515—Animal Nutrition	3
(4)—Plant science	6
AGR 212—Landscape Plants	3
AGR 213—Landscape Gardening	3
AGR 216—Floriculture	2
AGR 308—Weed Control	3
AGR 314—Plant Propagation	3
AGR 315—Fruit Production	3
AGR 317—Floral Design	3
AGR 320—Principles of Vegetable Production	3
AGR 321—Greenhouse Production I	3
AGR 322—Greenhouse Production II	3
AGR 325—Turf Management	3
AGR 326—Nursery Management	3
AGR 327—Advanced Landscape Design	3
AGR 384—Forage Crops	3
(5)—Soil science	3
AGR 311—Soil Conservation	3
AGR 312—Soil Fertility and Fertilizers	3

Horticulture Option

Students must complete the required core courses in the area of concentration in agriculture and 28 semester hours of approved electives selected from the following list:

	Sem. Hrs.
AGR 212—Landscape Plants	3
AGR 213—Landscape Gardening	3
AGR 216—Floriculture	2
AGR 308—Weed Control	3
AGR 312—Soil Fertility and Fertilizers	3
AGR 314—Plant Propagation	3
AGR 315—Fruit Production	3
AGR 317—Floral Design	3
AGR 320—Principles of Vegetable Production	3
AGR 321—Greenhouse Production I	3
AGR 322—Greenhouse Production II	3
AGR 325—Turf Management	3
AGR 326—Nursery Management	3
AGR 327—Advanced Landscape Design	3
BIOL 215—General Botany	4
BIOL 304—Genetics	3
BIOL 318—Local Flora	3
BIOL 334—Entomology	3
BIOL 513—Plant Physiology	3
BIOL 514—Plant Pathology	3
BIOL 550—Plant Anatomy	3
BIOL 555—Plant Morphology	3
CHEM 326, 326A—Organic Chemistry I and Laboratory	4
CHEM 327, 327A—Organic Chemistry II and Laboratory	4
HEC 103—Interior Graphics	3

Major

The student must complete a minimum of the core course requirements listed under the area of concentration in agriculture, five additional semester hours of approved agriculture electives, and a major or minor selected in another field. General course electives may also be taken in agriculture and related areas by students wishing greater depth in an agriculture field.

Minor

The student must complete a minimum of the 17 semester hours of agriculture courses and 4 semester hours of required additional courses in the following list, plus a major selected in another field. General course electives may also be taken in agriculture and related areas by students wishing greater depth in agriculture.

	Sem. Hrs.
Required courses in agriculture	17
AGR 101—General Agriculture	1
AGR 133—Farm Livestock Production	3
AGR 180—Elementary Field Crops	3
AGR 203—Agricultural Economics	3
AGR 211—Soils	3
AGR 215—Horticulture	3
AGR 471—Seminar	1
Approved agriculture electives	4
Additional course requirements	4
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1

Course descriptions begin on page 91

Agriculture Business Technology

(606) 783-2662

332 Reed Hall

Department of Agriculture and Natural Resources
College of Applied Sciences and Technology

Faculty—J. Bendixen, J. Martin, T. McMillan, M. Norris, B. Rogers, J. Willard (chair), R. Wolfe

Associate of Applied Science (Two-Year Program)

The student must complete a minimum of the 50 semester hours of required courses in the following list. Additional course electives may also be taken in agriculture and related areas by students wishing greater depth in agriculture business.

Core Requirements

	Sem. Hrs.
Required courses	50
AGR 133—Farm Livestock Production	3
AGR 180—Elementary Field Crops	3
AGR 203—Agriculture Economics	3
AGR 302—Agriculture Finance	3
AGR 305—Marketing of Farm Products	3
AGR 251—Introduction to Agriculture Mechanics	3
ECON 101—Introduction to American Economy	3
OADM 111—Beginning Typewriting	3
DATA 201—Introduction to Computers	3
FIN 252—Mathematics of Finance	3
MKT 350—Salesmanship	3
ACCT 281—Principles of Accounting I	3
ENG 101—Composition I	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
ENG 192—Technical Composition	3
BIOL 150—Introduction to Plant Science	3
Approved electives in option	15
(see available options below)	

Animal Science Option

AGR 231—Livestock Judging	3
AGR 316—Feeds and Feeding	3
AGR 330—Livestock Improvement	3
AGR 331—Advanced Livestock Judging	3
AGR 336—Dairy Production	3
AGR 337—Poultry Production	3
AGR 343—Beef Production	3
AGR 344—Swine Production	3
AGR 345—Sheep Production	3

Crop Science Option

AGR 207—Land Conservation and Forest Management	3
AGR 211—Soils	3

(continued on next page)

AGR 308—Weed Control	3
AGR 311—Soil Conservation	3
AGR 312—Soil Fertility and Fertilizers.....	3
AGR 384—Forage Crops.....	3

Horticulture Option

AGR 212—Landscape Plants	3
AGR 213—Landscape Gardening	3
AGR 215—Horticulture	3
AGR216—Floriculture	3
AGR 314—Plant Propagation	3
AGR 315—Fruit Production.....	3
AGR 317—Floral Design.....	3
AGR 320—Principles of Vegetable Production	3
AGR 325—Turf Management	3

Agriculture Management Option

AGR 205—Farm Records	3
AGR 301—Farm Management	3
AGR 303—Land Economics	3
AGR 385—Agribusiness Management	3
AGR 386—Introductory Agricultural Policy.....	3

Course descriptions begin on page 91

Art

606-783-2193

211 Claypool-Young Art Building
Department of Art
College of Arts and Sciences

Faculty—D. Bartlett, B. Booth, D. Ferrell, R. Franzini, R. Howard, R. Jones, J. Sartor, T. Sternal (chair), S. Tirone

Bachelor of Arts

The Department of Art offers undergraduate and graduate programs in art education, art history, and studio art.

Courses on the beginning, intermediate, and advanced levels are available in art education, art history, ceramics, commercial art, crafts, drawing, figure drawing, painting, photography, printmaking, and sculpture.

Art Major

	Sem. Hrs.
ART 101—Two Dimensional Foundation.....	3
ART 102—Three Dimensional Foundation	3
ART 103—Color Foundation.....	3
ART 214—Painting Techniques I	3
ART 263—Introduction to Ancient Art	3
ART 264—Introduction to Medieval and Renaissance Art	3

ART 283—Basic Black and White Photography	3
OR	
ART 351—Intaglio Printmaking	
OR	
ART 352—Lithographic Printmaking	
ART 245—Ceramics I.....	3
OR	
ART 294—Sculpture I	
ART history (300 or higher elective)	3
Three elective art courses (could include any studio, art education, or art history courses as choices)	9
Art major (minimum) credits.....	36

Area of Concentration beyond the Major

Six additional elective art courses (could include all studio, commercial art, art history, art education, internship courses as choices)	18
Art concentration (minimum) credits	54

Studio Art Minor

ART 101—Two Dimensional Foundation	3
ART 102—Three Dimensional Foundation	3
ART 103—Color Foundation.....	3
ART 263—Introduction to Ancient Art	3
ART 264—Introduction to Medieval and Renaissance Art	3
ART 283—Basic Black and White Photography	3
OR	
ART 351—Intaglio Printmaking	
OR	
ART 352—Lithographic Printmaking	
ART 245—Ceramics I.....	3
OR	
ART 294—Sculpture I	
ART elective.....	3
Studio art minor (minimum) credits	24

Art History Minor

ART 101—Two Dimensional Foundation	3
ART 103—Color Foundation.....	3
ART 263—Introduction to Ancient Art	3
ART 264—Introduction to Medieval and Renaissance Art	3
Art history 300 or above	6
Art elective course	3
Art history minor (minimum) credits	21

Art Education Minor

ART 101—Two Dimensional Foundation	3
ART 102—Three Dimensional Foundation	3
ART 263—Introduction to Ancient Art	3
ART 264—Introduction to Medieval and Renaissance Art	3
ART 283—Basic Black and White Photography	3
OR	
ART 351—Intaglio Printmaking	
OR	
ART 352—Lithographic Printmaking	
ART 245—Ceramics I.....	3
OR	
ART 294—Sculpture I	
ART 300—Elementary Materials and Methods	3
ART 321—Secondary Materials and Methods	3
ART elective courses	6
Art education minor (minimum) credits	30

Course descriptions begin on page 91

Athletic Training

(606) 783-2180

201 Laughlin Health Building

Department of Health, Physical Education, and Recreation

College of Professional Studies

Faculty—E. Bentley (chair), B. Crager

Minor

	Sem. Hrs.
HLTH 203—Safety and First Aid.....	3
PHED 302—Athletic Injuries.....	2
PHED 402—Kinesiology.....	3
PHED 420—Administration of School Athletic Programs.....	3
PHED 207—Training Room Modalities.....	2
PHED 208—Medical Aspects of Athletic Training.....	2
PHED 209—Training Room Practice.....	2
PHED 210—Diagnostic Techniques of Athletic Injuries.....	2
PHED 432—Physiology of Exercise.....	3
HLTH 320—Elements of Nutrition.....	3
	25

Course descriptions begin on page 91

Basic Business

(606) 783-2163, 783-2174

306 Combs Building

School of Business and Economics

College of Professional Studies

Faculty—R. Bernardi, S. Hunt, S. Luckey, H. Northcutt, G. Ousley

Bachelor of Business Administration

Basic Business Option

Students wishing to teach in the non-secretarial programs in business on the secondary level should select the basic business option. This curriculum will satisfy certification requirements for teaching accounting and basic business courses. In addition, an endorsement for teaching advanced data processing may be added to a high school certificate upon completion of a total of 9 semester hours credit in data processing.

General Education Requirements

The following specific courses must be included in the 46 hour general education component (see general education requirements)

	Sem. Hrs.
SPCH 370—Business and Professional Speech.....	3
MATH 160—Mathematics for Business and Economics.....	4
MATH 354—Business Statistics.....	3
ECON 201—Principles of Economics I.....	3

Core for Teacher Education Programs

	Sem. Hrs.
ACCT 281—Principles of Accounting I.....	3
ACCT 282—Principles of Accounting II.....	3
DATA 201—Introduction to Computers.....	3
FIN 360—Business Finance.....	3
MKT 304—Marketing.....	3
MNGT 261—The Legal Environment of Business Organizations.....	3
MNGT 301—Principles of Management.....	3
OADM 136—Business Calculations.....	3
OADM 321—Business Communications.....	3
	27

Program Requirements

	Sem. Hrs.
BBA—Teacher education core.....	27
ACCT—elective.....	3
FIN 264—Personal Finance.....	3
OADM 112—Intermediate Typewriting.....	3
OADM 190—Office Accounting.....	3
OADM 210—Word Processing I.....	3
OADM 220—Word Processing II.....	3
OADM 340—Simulated Office Education.....	3
OADM 363—Office Management.....	3
OADM 475—Methods of Teaching Business Subjects.....	5
	56

Bachelor of Science

Minor

For students who are majoring in another discipline and who do not desire teacher certification in business education.

Course Requirements

	Sem. Hrs.
DATA 201—Introduction to Computers.....	3
OADM—Typewriting.....	3
OADM 136—Business Calculations.....	3
OADM 190—Office Accounting.....	3
OADM 321—Business Communications.....	3
OADM 363—Office Management.....	3
Approved elective.....	3
	21

Course descriptions begin of page 91

Biology

Teaching, (606) 783-2947 (H. Setser)
 Non-Teaching, (606) 783-2957 (D. McNeely)
 102 Lappin Hall
 Department of Biological and Environmental Sciences
 College of Arts and Sciences

Faculty—D. Brumagen, F. Busroe, G. DeMoss (chair), R. Eversole, J. Howell, D. Magrane, D. McNeely, L. Meade, T. Pass, M. Pryor, D. Saxon, H. Setser, C. Van Bell.

The Department of Biological and Environmental Sciences offers a comprehensive non-teaching major and minor in biology which are designed (1) to provide a strong foundation for the development of professional biologists; (2) to offer progressive programs for pre-dentistry, pre-medicine, pre-physical therapy, pre-pharmacy, and pre-chiropractic medicine; and (3) to support the academic programs of other departments. A teaching major and minor in biology are also available (see curriculum outline listed under the Secondary Science Teaching section). Requirements for the non-teaching biology major and the teaching major are identical, except that those pursuing the teaching major complete the professional semester (student teaching), have additional supplemental requirements, and have additional courses from which they can select their advanced electives.

Bachelor of Science

Non-Teaching Major

Requirements for the teaching major are listed under "Secondary Science Teaching".

Core (29 hours)

	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1
BIOL 171 Principles of Biology	4
BIOL 210—General Zoology	4
BIOL 215—General Botany	4
BIOL 304—Genetics	3
BIOL 317—Principles of Microbiology	4
BIOL 380—Cell Biology	3
BIOL 561—Ecology	3
BIOL 525—Animal Physiology	
OR	
BIOL 513—Plant Physiology	3
Total for biology core	29

Electives (9 hours)

*Advanced biology categories (see listing below)	9
Total hours for a biology major(non-teaching)	38

Advanced biology categories

Students must select, from the following three categories, nine hours (minimum of three courses) of advanced electives in biology. The student may select no more than two courses from any one group. Courses selected from advanced biology categories will not be counted as part of the biology core.

Group A

BIOL 319—Immunology and Serology
 BIOL 513—Plant Physiology
 BIOL 518—Pathogenic Microbiology
 BIOL 519—Virology
 BIOL 525—Animal Physiology
 BIOL 596—Biochemistry II

Group B

BIOL 337—Comparative Anatomy
 BIOL 338—Developmental Biology
 BIOL 514—Plant Pathology
 BIOL 540—Parasitology
 BIOL 550—Plant Anatomy
 BIOL 555—Plant Morphology

Group C

BIOL 318—Local Flora
 BIOL 334—Entomology
 BIOL 510—Limnology
 BIOL 531—Herpetology
 BIOL 535—Mammalogy
 BIOL 536—Ichthyology
 BIOL 537—Ornithology
 Gulf Coast Research Laboratory Courses (see course description listing beginning page 91 under "Marine Science")

Note: Biology 574 (Experimental Course) or BIOL 599 (Selected Workshop Topics): one course may be used as an elective for Group A, B, or C if it is approved as suitable by the departmental Curriculum Committee.

Supplemental Requirements

Chemistry (12-16 hours)

Students must select one of the following sequences:

Sequence I (16 hours)

	Sem. Hrs.
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Lab	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
CHEM 326—Organic Chemistry I	3
CHEM 326A—Organic Chemistry I Lab	1
CHEM 301—Survey of Biochemistry	3
CHEM 301A—Survey of Biochemistry Lab	1
OR	
BIOL 595—Biochemistry I	4

Sequence II (12 hours)

Chemistry

CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Lab	1
CHEM 201—Survey of Organic Chemistry	3
CHEM 201—Survey of Organic Chemistry Lab	1
CHEM 301—Survey of Biochemistry	3
CHEM 301A—Survey of Biochemistry Lab	1

Physics (8 hours)

PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1

Mathematics (6 hours)

MATH 174—Pre Calculus Mathematics II or equivalent	3
MATH 123—Introduction to Statistics or equivalent	3
Total Supplemental hours	26-30

Non-Teaching Minor

Requirements for the teaching minor are listed under "Secondary Science."

Core (12 hours)

	Sem. Hrs.
BIOL 171—Principles of Biology	4
BIOL 210—General Zoology	4
BIOL 215—General Botany	4
Core total	12

Electives (Minimum of 12 hours)

One of the following courses (minimum of 3 hours):	3
BIOL 304—Genetics	
BIOL 317—Microbiology	
BIOL 380—Cell Biology	
BIOL 513—Plant Physiology	
BIOL 525—Animal Physiology	
BIOL 561—Ecology	
Three additional courses (minimum of 9 hours). These courses must be selected from the list of courses (Core and Elective) accepted for the biology major (non-teaching).	9
Total hours for a non-teaching biology minor	24

Supplemental Requirements**Chemistry (8 hours)**

The student must take one of the following sequences:

Sequence I

CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Lab	1
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Lab	1

Sequence II

CHEM 111—Principles of Chemistry	3
CHEM 111A—Principles of Chemistry I Lab	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	8
Total supplemental hours	8

Course descriptions begin on page 91

Broadcast Technology

(606) 783-2013
210 Lloyd Cassity Building
Department of Industrial Education and Technology
College of Applied Sciences and Technology

Faculty—D. Karwatka, M. Roberts

**Associate of Applied Science
(Two-Year Program)****General Education Requirements**

The following specific courses must be included in the general education component (see general education requirements).

	Sem. Hrs.
ENG 101—Composition I	3
MATH 135—Problem Solving Techniques	3
ENG 192—Technical Composition	3
MATH 141—Plane Trigonometry	3
ECON 101—Introduction to American Economics	3
	15

Core Requirements

GCT 103—Technical Drawing I	3
EET 141—Electric Circuits	3
R-TV 151—Introduction to Broadcast Technicians	2
IET—Approved industrial technology elective	2
R-TV 155—Broadcast Performance	3
EET 241—Circuit Analysis	3
EET 338—Radio Operating Practices	1
R-TV 250—Audio Production and Direction	4
EET 245—Digital Electronics	3
R-TV 340—Video Production and Direction I	3
EET 344—Communication Circuits	3
EET 242—Transistors and Semiconductors	3
EET 341—Electrical Drafting and Design	3
EET 444—Communication Systems	3
Approved electronics electives	6
PSY 202—Elementary Physics II	3
MATH 110—Problem Solving Techniques	1
	49

Course descriptions begin on page 91

Chemistry

(606) 783-2914
206 Lappin Hall
Department of Physical Sciences
College of Arts and Sciences

Faculty—H. Cain, H. Hedgecock, R. Hunt, L. Payne

The chemistry program attempts (1) to educate students both in chemical theory and in laboratory techniques to the degree required for professional chemists or to support other career objectives; (2) to prepare students to enter graduate school; (3) to prepare chemistry teachers for the public schools; or (4) to offer supportive courses needed by students in other disciplines.

Bachelor of Science**Major**

Students who plan to become professional chemists or to attend graduate schools should complete the following courses:

	Sem. Hrs.
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Laboratory	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Laboratory	1
CHEM 223—Quantitative Analysis	4
CHEM 326—Organic Chemistry I	3
CHEM 326A—Organic Chemistry I Lab	1
CHEM 327—Organic Chemistry II	3
CHEM 327A—Organic Chemistry II Lab	1
CHEM 328—Organic Chemistry III	3
CHEM 328A—Organic Chemistry III Lab	2
CHEM 350—Inorganic Chemistry	3
CHEM 441—Physical Chemistry I	1

(continued on next page)

CHEM 442—Physical Chemistry II	4
CHEM 450—Qualitative Organic Analysis	4
CHEM 460—Instrumental Analysis	4
SCI 471—Seminar	1
	44

Supplemental Requirements

	Sem. Hrs.
MATH 175—Analytic Geometry and Calculus I	4
MATH 275—Analytic Geometry and Calculus II	4
MATH 276—Analytic Geometry and Calculus III	4
PHYS 231—Engineering Physics I	4
PHYS 231A—Engineering Physics I Lab	1
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Lab	1
GER 101—Beginning German I	3
GER 102—Beginning German II	3
DATA 202—Computer Programming BASIC OR	
MATH 260—Fortran Programming I	3
	31

This curriculum is designed to meet the standards of the American Chemical Society.

Minor

	Sem. Hrs.
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Laboratory	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Laboratory	1
CHEM 223—Quantitative Analysis	4
CHEM 326—Organic Chemistry I	3
CHEM 326A—Organic Chemistry I Laboratory	1
CHEM—electives approved by advisor	5
	21

Course descriptions begin on page 91

Child Development

(606) 783-2966
100 Lloyd Cassity Building
Department of Home Economics
College of Applied Sciences and Technology

Faculty—J. Ellington, C. Taylor

Minor

The minor in child development is offered to complement majors in disciplines such as health, radio/TV, journalism, recreation, sociology, and general home economics. The minor prepares students for positions in day care centers and nursery schools.

Course Requirements

	Sem. Hrs.
HEC 200—Family Perspectives	3
HEC 201—Principles of Nutrition	3
HEC 355—Child Growth and Development	3
HEC 356—Preschool Administration	3

HEC 363—Human Resource Management	3
EDEL 228—Literature and Materials for Children	3
EDSP 230—Education and Exceptional Children	3
PHED 311—Movement Exploration	3
	24

Course descriptions begin on page 91

Clerical Studies

(606) 783-2163, 783-2174
306 Combs Building
School of Business and Economics
College of Professional Studies

Faculty—R. Bernardi, S. Hunt, S. Luckey, H. Northcutt, G. Ousley

One-Year Certificate

Course Requirements

	Sem. Hrs.
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3
MNGT 160—Introduction to Business	3
OADM—Typewriting	6
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
OADM 210—Word Processing I	3
OADM 321—Business Communications	3
OADM 340—Simulated Office Education OR	
OADM 363—Office Management	3
Approved electives	2
	32

Course descriptions begin on page 91

Communications

(606) 783-2134
109 Breckinridge Hall
Department of Communications
College of Arts and Sciences

Faculty—R. Dandeneau (chair)

The Department of Communications prepares students for professional, business, and educational careers in speech, theatre, radio-television, and journalism. Recognition of the literary, artistic, and psychological elements of these studies enhances the student's appreciation of man's expressive achievements.

Restrictions Applying to All Programs in Communications

A student may credit toward a program of study in the Department of Communications a limited number of hours from any combination of the following courses, each of which is available in the academic areas of journalism, radio-TV, speech, and theatre:

Communications Cooperative Study 139, 239, 339, 439, 539.

Communications Internship 347, 447.

Special Problems 476.

In each communications program, no more than 9 hours in any combination of the courses listed above may be applied toward an area of concentration, a major, or an associate degree. No more than 6 such hours may be applied toward a minor.

Credit hours earned in these courses which exceed the limits above will not apply to program requirements, but may be applied to the minimum requirements for an A.B. or A.A.A. degree.

Bachelor of Arts

Area of Concentration

Core Requirements

	Sem. Hrs.
JOUR 110—Introduction to Mass Communications.....	3
JOUR 201—News Writing and Reporting.....	3
SPCH 100—Voice and Articulation.....	3
SPCH 370—Business and Professional Speech.....	3
R-TV 240—Writing for Broadcast.....	3
THEA 100—Fundamentals of the Theatre.....	3
THEA 200—Introduction to Dramatic Literature.....	3
	24

Journalism Emphasis (Non-Teaching)

	Sem. Hrs.
JOUR 204—Copyreading and Editing.....	3
JOUR 285—Introduction to Photojournalism.....	3
JOUR 301—Advanced News Writing and Reporting.....	3
JOUR 364—Feature Writing OR JOUR 383—Principles of Advertising.....	3
JOUR electives.....	8
COMM electives.....	4
	24

Radio-Television Emphasis (Non-Teaching)

	Sem. Hrs.
R-TV 250—Audio Production Direction.....	4
R-TV 340—Video Production and Direction I.....	3
R-TV 344—Broadcast News and Public Affairs.....	3
OR	
R-TV 450—Broadcast Management.....	3
R-TV electives.....	11
COMM electives.....	3
	24

Speech Emphasis (Non-Teaching)

	Sem. Hrs.
SPCH 110—Basic Speech.....	3
SPCH 200—Oral Interpretation.....	3
SPCH 382—Argumentation and Debate.....	3
SPCH 383—Group Discussion.....	3
SPCH 385—Persuasion.....	3

SPCH electives.....	6
COMM electives.....	6
	27

Theatre Emphasis (Non-Teaching)

	Sem. Hrs.
THEA 210—Technical Production.....	3
THEA 284—Acting Techniques.....	3
THEA 320—Scenographic and Drawing Techniques.....	3
THEA 322—Scene Design.....	3
THEA 354—Theatre History.....	3
THEA 380—Play Directing.....	3
COMM electives.....	4
	25

Minor in Organization Communication

	Sem. Hrs.
SPCH 310—Interpersonal Communication.....	3
SPCH 370—Business and Professional Speech.....	3
SPCH 567—Organizational Communication.....	3
ENG—option—one of the following courses.....	3
ENG 192—Technical Composition.....	
ENG 591—Technical Writing I.....	
ENG 592—Technical Writing II.....	
Electives chosen from the following list.....	9
	21
SPCH 210—Listening.....	3
SPCH 315—Verbal Survival.....	3
SPCH 383—Group Discussion.....	3
SPCH 385—Persuasion.....	3
SPCH 510—Advanced Public Speaking.....	3
SPCH 570—Parliamentary Procedure.....	3
SPCH 571—Interviewing.....	3
OADM 210—Word Processing I.....	3
OADM 321—Business Communications.....	3
JOUR 364—Feature Writing.....	3
ENG—technical writing courses not taken to meet the above requirements.....	3—6

Course descriptions begin on page 91

Construction Technology

(606) 783-2013
210 Lloyd Cassity Building
Department of Industrial Education and Technology
College of Applied Sciences and Technology

Associate of Applied Science (Two-Year Program)

General Education Requirements

The following specific courses must be included in the general education component (see general education requirements):

	Sem. Hrs.
ENG 101—Composition I.....	3
ECON 101—Introduction to American Economy.....	3
MATH 135—Mathematics for Technical Students.....	3
ENG 192—Technical Composition.....	3
SPCH 370—Business and Professional Speech.....	3
	15

Core Requirements

	Sem. Hrs.
CON 101—Introduction to Construction Technology	3
CON 201—Properties of Construction Materials	3
CON 102—Surveying I	3
GCT 103—Technical Drawing I	3
CON 103—Materials Testing	3
EET 240—Residential Wiring	3
CON 204—Codes, Contracts and Specifications	3
Approved technical elective	3
CON 203—Construction Methods and Equipment	3
CON 104—Surveying II	3
CON 202—Structural Design	3
CGT 305—Housing	3
CON 205—Estimating Construction Costs	3
CON 206—Construction Management	3
WEL 204—Welding Codes and Blueprint Reading	3
IET 320—Supervisory Practices	3
MATH 110—Problem Solving Techniques	1
	49

Course descriptions begin on page 91

Corrections

(606) 783-2656
347 Rader Hall
Department of Sociology, Social Work and Corrections
College of Professional Studies

Faculty—R. Bylund, L. Crosthwaite, T. Marshall, T. Munson, M. Patton, E. Reeves, D. Rudy (chair), J. Seelig, A. Wheeler, M. Whitson, P. Whitson

The Corrections Program, including sociology with a corrections emphasis (see Sociology this section), prepares students for a wide range of career opportunities in local, state, and federal criminal justice agencies. Specific examples include: correctional officer, probation and parole officer, counselor, case manager, police officer, youth officer, and others.

Minor

	Sem. Hrs.
COR 201—Sociology of Corrections	3
COR 320—Probation and Parole	3
COR 420—Seminar in Criminal Behavior	3
Advanced electives in corrections	12
	21

Associate of Applied Arts (Two-Year Program)

Program Requirements

	Sem. Hrs.
COR 201—Sociology of Corrections	3
COR 320—Probation and Parole	3
COR 390—Field Experience in Corrections	3
COR 420—Seminar in Criminal Behavior	3
Advanced corrections electives	9
SOC 101—General Sociology	3

SOC 203—Contemporary Social Problems	3
SOC 354—The Individual and Society	3
SOC 374—American Minority Relations	3
SWK 210—Orientation to Social Welfare	4
SWK 315—Child Welfare Services	3
GOVT 380—American Courts and Civil Rights	3
PSY 154—Introduction to Psychology	3
ENG 101—Composition I	3
ENG 102—Composition II	3
ENG 192—Technical Composition	3
MATH 131—General Mathematics	3
Approved electives	7
	65

For an additional corrections program: see Sociology, this section, for a major with emphasis in corrections.

Course descriptions begin on page 91

Data Processing

(606) 783-2163, 783-2174
306 Combs Building
School of Business and Economics
College of Professional Studies

Faculty—B. Bailey, H. Berry, W. Counts, C. Hicks, P. Mulcahy, W. Rodgers

Bachelor of Business Administration

Data Processing Option

General Education Requirements

The following specific courses must be included in the 42 hour general education component (see general education requirements)

	Sem. Hrs.
SPCH 370—Business and Professional Speech	3
MATH 160—Mathematics for Business and Economics	3
MATH 354—Business Statistics	3
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3

Core Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
ECON 350—Microeconomic Theory	3
FIN 360—Business Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
MNGT 306—Production Management	3
MNGT 472—Business Policies and Problems	3
OADM 321—Business Communications	3
	33

Course Requirements

	Sem. Hrs.
BBA Core	33
DATA 202—Computer Programming BASIC	3

DATA 210—Computer Programming ASSEMBLER I.....	3
DATA 215—Computer Programming COBOL I.....	3
DATA 260—FORTRAN Programming I.....	3
DATA 315—Computer Programming COBOL II.....	3
DATA 320—Computerized Business Systems.....	3
DATA 405—Systems Analysis and Design.....	3
	54

Bachelor of Science

Minor

Students selecting a data processing minor should first consult with advisors in their major areas.

	Sem. Hrs.
DATA 201—Introduction to Computers.....	3
DATA 202—Computer Programming BASIC	
OR	
DATA 260—FORTRAN Programming I.....	3
DATA 210—Computer Programming ASSEMBLER I.....	3
DATA 215—Computer Programming COBOL I.....	3
DATA 315—Computer Programming COBOL II.....	3
DATA 320—Computerized Business Systems.....	3
DATA 405—Systems Analysis and Design.....	3
DATA elective.....	3
	24

Associate of Applied Business (Two-Year Program)

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I.....	3
ACCT 282—Principles of Accounting II.....	3
DATA 201—Introduction to Computers.....	3
DATA 202—Computer Programming BASIC.....	3
DATA 210—Computer Programming ASSEMBLER I.....	3
DATA 215—Computer Programming COBOL I.....	3
DATA 260—FORTRAN Programming I.....	3
DATA 315—Computer Programming COBOL II.....	3
DATA 320—Computerized Business Systems.....	3
DATA 405—Systems Analysis and Design.....	3
ECON 201—Principles of Economics I.....	3
ENG 101—Composition I.....	3
ENG 102—Composition II.....	3
FIN 252—Mathematics of Finance.....	3
MATH 160—Mathematics for Business and Economics.....	4
MNGT 160—Introduction to Business.....	3
OADM 321—Business Communications.....	3
SPCH 370—Business and Professional Speech.....	3
Approved electives.....	9
	64

Course descriptions begin on page 91

Dietetics

(606) 783-2966
Department of Home Economics
College of Applied Sciences and Technology

Faculty—J. Ellington, N. Graham, D. Patton

Bachelor of Science

Area of Concentration in General Dietetics

Students who complete the general dietetics program are eligible to apply for dietetic internships and/or graduate programs in order to meet registration requirements of the American Dietetic Association. Areas of employment include clinical and administrative dietetics, community nutrition, research, and teaching.

Core Requirements

	Sem. Hrs.
HEC 101—Orientation to the Home Economics Profession.....	1
HEC 200—Family Perspectives.....	3
HEC 201—Principles of Nutrition.....	3
HEC 363—Human Resource Management.....	3
HEC 471—Seminar.....	1
	11

Program Requirements

HEC 130—Elementary Food Preparation.....	3
HEC 132—Food Service Operations.....	3
HEC 231—Meal Management.....	3
HEC 233—Essentials of Clinical Dietetics.....	3
HEC 234—Computer Assisted Food Service Management.....	3
HEC 327—Maternal, Infant, and Child Nutrition.....	3
HEC 330—Quantity Food Purchasing.....	3
HEC 333—Diet Therapy.....	3
HEC 334—Quantity Food Preparation.....	3
HEC 335—Equipment and Facilities Planning.....	3
HEC 336—Institutional Organization and Management.....	3
HEC 337—Food Production Management.....	3
HEC 410—Therapeutic Nutrition.....	3
HEC 435—Advanced Nutrition.....	3
HEC 438—Experimental Foods.....	3
HEC 470—Methods of Teaching Vocational Home Economics.....	3
	48

Supplemental Requirements

ACCT 281—Principles of Accounting I.....	3
ACCT 282—Principles of Accounting II.....	3
BIOL 217—Elementary Medical Microbiology	
OR	
BIOL 317—Principles of Microbiology.....	3
BIOL 332—Human Physiology.....	3
BIOL 332A—Human Physiology Laboratory.....	1
CHEM 101—Survey of General Chemistry.....	3
CHEM 101A—Survey of General Chemistry Laboratory.....	1
CHEM 201—Survey of Organic Chemistry.....	3
CHEM 201A—Survey of Organic Chemistry Laboratory.....	1
CHEM 301—Survey of Biochemistry.....	3
CHEM 301A—Survey of Biochemistry Laboratory.....	1
ECON 201—Principles of Economics I.....	3
ECON 202—Principles of Economics II.....	3
ENG 101—Composition I.....	3
ENG 192—Technical Composition.....	3
MATH 152—College Algebra.....	3
MATH 354—Business Statistics.....	3
MNGT 301—Principles of Management.....	3
MNGT 311—Personnel Management.....	3
PSY 154—Introduction to Psychology.....	3
SPCH 110—Basic Speech.....	3
SOC 101—General Sociology.....	3
SOC—approved sociology elective.....	3
	61

Course descriptions begin on page 91

Drafting and Design Technology

(606) 783-2013
210 Lloyd Cassity Building
Department of Industrial Education and Technology
College of Applied Science and Technology

Faculty—W. Morella, E. Nass, R. Tucker

Associate of Applied Science (Two-Year Program)

General Education Requirements

The following specific courses must be included in the general education component (see general education requirements):

	Sem. Hrs.
ENG 101—Composition I.....	3
MATH 135—Mathematics for Technical Students.....	3
GENERAL elective.....	3
ENG 192—Technical Composition.....	3
SPCH 370—Business and Professional Speech.....	3
	15

Core Requirements

	Sem. Hrs.
GCT 103—Technical Drawing I.....	3
IET 111—Basic Wood Technics.....	3
MFT 186—Manufacturing and Fabrication.....	3
GCT 203—Technical Drawing II.....	3
GCT 301—Tool Layout and Design.....	3
IET 317—Time and Motion Study.....	2
MFT 286—Machine Tool Processes.....	3
IET 160—Introduction to Power and Fluid Mechanics.....	3
GCT 204—Descriptive Geometry.....	3
CON 202—Structural Design.....	3
GCT 305—Housing.....	3
IET 330—Industrial Design.....	2
GCT 303—Technical Illustration.....	3
IET 319—Quality Control.....	3
GCT 403—Machine Drawing and Design.....	3
IET 320—Supervisory Practices.....	3
Electives.....	6
	52

Course descriptions begin on page 91

Earth Science

(606) 783-2914
206 Lappin Hall
Department of Physical Sciences
College of Arts and Science

Faculty—D. Hylbert, R. Lierman, C. Mason, J. Philley

Bachelor of Science

Major

	Sem. Hrs.
GEOS 100—Physical Geology.....	1
GEOS 107—Introduction to Geoscience.....	3
GEOS 201—Historical Geology.....	3
GEOS 250—Minerals and Rocks (OR GEOS 262—Mineralogy).....	3-4
GEOS 276—Geologic Methods.....	3
GEOS 410—Geological History of Plants and Animals.....	3
SCI 200—Descriptive Astronomy.....	3
SCI 471—Seminar.....	1
AGR 211—Soils.....	3
GEO 390—Weather and Climate.....	3
GEOS—electives approved by advisor.....	5-6
	32

Minor

	Sem. Hrs.
GEOS 100—Physical Geology.....	1
GEOS 107—Introduction to Geoscience.....	3
GEOS 201—Historical Geology.....	3
GEOS 276—Geologic Methods.....	3
SCI 200—Descriptive Astronomy.....	3
GEO 390—Weather and Climate.....	3
Electives approved by advisor.....	5
	21

Course descriptions begin on page 91

Economics

(606) 783-2152, 783-2174
222 Combs Building
School of Business and Economics
College of Professional Studies

Faculty—R. Buck, E. Campbell, G. Miller, M. Yasin

Bachelor of Business Administration

Economics Option

General Education Requirements

The following specific courses must be included in the 42 hour general education component (see general education requirements):

	Sem. Hrs.
SPCH 370—Business and Professional Speech.....	3
MATH 160—Mathematics for Business and Economics.....	3
MATH 354—Business Statistics.....	3
ECON 201—Principles of Economics I.....	3
ECON 202—Principles of Economics II.....	3

Core Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I.....	3
ACCT 282—Principles of Accounting II.....	3
DATA 201—Introduction to Computers.....	3

ECON 350—Microeconomic Theory.....	3
FIN 360—Business Finance	3
MKT 304—Marketing.....	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
MNGT 306—Production Management	3
MNGT 472—Business Policies and Problems	3
OADM 321—Business Communications	3
	33

Course Requirements

BBA core	Sem. Hrs.
ECON 302—Labor Economics.....	33
ECON 541—Public Finance	3
ECON 547—International Economics	3
ECON 551—Macroeconomic Theory	3
FIN 342—Money and Banking.....	3
*Approved electives	6
	54

Bachelor of Science

Minor

Students selecting programs with economics minors should first consult with advisors in their major areas.

Course Requirements

ECON 201—Principles of Economics I.....	Sem. Hrs.
ECON 202—Principles of Economics II	3
ECON 350—Microeconomic Theory.....	3
ECON 551—Macroeconomic Theory	3
FIN 342—Money and Banking.....	3
*Economics electives.....	6
	21

*To be selected with consent of faculty advisor.

Course descriptions begin on page 91

Electrical Technology

(606) 783-2013
210 Lloyd Cassity Building
Department of Industrial Education and Technology
College of Applied Sciences and Technology

Faculty—R. Stanley

Associate of Applied Science (Two-Year Program)

General Education Requirements

The following specific courses must be included in the general education component (see general education requirements):

ENG 101—English Composition I.....	Sem. Hrs.
MATH 135—Math for Technical Students	3

ECON 101—Introduction to the American Economy.....	3
ENG 192—Technical Composition.....	3
MATH 141—Plane Trigonometry.....	3
	15

Core Requirements

GCT 103—Technical Drawing I.....	Sem Hrs.
EET 141—Electrical Circuits	3
EET 241—Circuit Analysis.....	3
EET 245—Digital Electronics	3
EET 240—Residential Wiring.....	3
EET 242—Transistors and Semiconductors	3
EET 243—Power Transformers and Distribution	3
EET 345—Microprocessor Electronics.....	3
EET 442—Industrial Electronics	3
IET 317—Time and Motion	2
IET 319—Quality Control	3
EET 341—Electrical Drafting and Design	3
EET 343—Motors and Generators	3
EET 443—Industrial Electricity.....	3
ROB 170—Introduction to Robotics	3
DATA 201—Introduction to Computers	3
MATH 110—Problem Solving Techniques	1
EET 338—Radio Operating Procedures	1
	49

Course descriptions begin on page 91

Electronics Technology

(606) 783-2013
210 Lloyd Cassity Building
Department of Industrial Education and Technology
College of Applied Sciences and Technology

Faculty—M. Roberts

Associate of Applied Science (Two-Year Program)

General Education Requirements

The following specific courses must be included in the general education component (see general education requirements):

MATH 135—Math for Technical Students.....	Sem. Hrs.
ENG 101—Composition I.....	3
ECON 101—Introduction to American Economy	3
ENG 192—Technical Composition.....	3
MATH 141—Plane Trigonometry.....	3
	15

Core Requirements

GCT 103—Technical Drawing I.....	Sem Hrs.
EET 141—Electrical Circuits	3
EET 241—Circuit Analysis.....	3
EET 245—Digital Electronics	3
EET 242—Transistors and Semiconductors	3
	(continued on next page)

EET 240—Residential Wiring	3
EET 338—Radio Operating Practices	1
EET 344—Communications Circuits	3
EET 345—Microprocessor Electronics	3
EET 442—Industrial Electronics	3
IET 317—Time and Motion Study	2
IET 319—Quality Control	3
EET 341—Electrical Drafting and Design	3
EET 444—Communications Systems	3
EET 445—Computer Electronics	3
ROB 170—Introduction to Robotics	3
DATA 201—Introduction to Computers	3
MATH 110—Problem Solving Techniques	1
	49

Course descriptions begin on page 91

Elementary Education

(606) 783-2859
401 Ginger Hall
School of Education
College of Professional Studies

Faculty—S. Blair, D. Cox, G. Duncan, K. Freeland, C. Grindstaff,
C. Hampton, K. Herzog, G. Horsky, L. Howell, J. Mangrum, M. Pollock,
D. Price, D. Ris, L. Sabie, R. Wells, S. Young

Students who complete this program are eligible to apply for Kentucky teacher certification grades 1-8. **Important**—Please see “Teacher Education Program” and “Professional Laboratory Experiences” requirements elsewhere in this catalog.

Requirements for certification in elementary education are being changed by the Kentucky State Department of Education. The revised requirements provide for teacher certification in grades K-4 or 5-8. Students initially admitted to the university for the fall semester 1986-87 will be required to follow the revised certification patterns. Course requirements will vary from those listed below. The State Department of Education will not issue certificates for grades 1-8 after September 1, 1989.

Bachelor of Arts

Area of Concentration

Area and General Education Requirements

EDUCATION	Sem. Hrs. 44
EDF 207—Foundations of Education	3
EDF 211—Human Growth and Development	3

EDEL 228—Literature and Materials for Children	3
EDSP 230—Education of Exceptional Children	3
EDEL 301—Media Strategies	2
EDEL 321—Teaching of Arithmetic	3
EDEL 322—Teaching Social Studies in Elementary School	3
EDEL 323—Language Arts for the Elementary School	3
EDEL 336—Foundations of Reading	3
EDEL 337—Reading Strategies for the Elementary Teacher	3

PROFESSIONAL SEMESTER

EDEL 425—Supervised Teaching Practicum—Elementary	12
EDUC 582—Discipline and Classroom Management	3

RELATED STUDIES

ART 121 or 221	29
GEO 100, 211, 241, or 300	3
HLTH 300—Health in the Elementary School	2
*MATH 231—Mathematics for the Elementary Teacher I	3
*MATH 232—Mathematics for the Elementary Teacher II	3
MUST 100—Rudiments of Music	2
MUSE 221—Music for the Elementary Teacher	2
PHED 300—Physical Education in the Elementary School	2
PSY 154—Introduction to Psychology	3
SCI 490—Science for the Elementary Teacher	3
Elective—Creative Expression	3

GENERAL EDUCATION

ENG 101—Composition I	39
ENG 102—Composition II	3
ENG 202 or 211 or 212	3
SPCH 110 or 370	3
FNA 160—Appreciation of Fine Arts	3
SCI 103 or higher	3
BIOL 105 or higher	3
PHIL 200—Introduction to Philosophy	3
HIST 130 or 131 and 132	3
HIST 140 or 141 and 142	3
GOVT 141 or 242 or 310	3
SOC 101—General Sociology	3
HLTH 150—Personal Health	2
Elective—PHED activity course	1

*Course meets general education requirements

APPROVED ELECTIVES	16
	128

Early Childhood Endorsement

The objective of the program in Early Childhood Education is to provide a kindergarten endorsement for teachers holding elementary certification, grades 1-8. Students admitted to the university starting in 1986-87 should pursue the K-4 program if they seek certification to teach kindergarten.

Certification in Kindergarten Education

In addition to meeting all requirements for elementary certification:

EDEC 527—The Pre-School Child	Sem. Hrs. 3
EDEC 528—Activities and Materials in Early Childhood Education	3
EDEC 529—Practicum in Early Childhood Education	4

Course descriptions begin on page 91

Engineering Science

(606) 783-2914
206 Lappin Hall
Department of Physical Sciences
College of Arts and Sciences

Faculty—R. Brengelman, D. Cutts, C. Whidden

Associate of Science (Two-Year Program)

The student completes the core courses in the Associate of Science degree program, and elective courses can be chosen from such fields as electronics, mining, machine tool, or power and fluids technology. *At least one-half of the core courses must be completed at Morehead State University.*

The two-year Associate of Science degree in engineering science is designed for students who wish to seek immediate employment as engineering technicians or aides. Such employment may be in a permanent position, or the student may wish to gain engineering employment experience before returning to school to complete a four-year engineering degree.

Suggested Program

FIRST YEAR

First Semester

	Sem. Hrs.
ENG 101—Composition I.....	3
MATH 175—Analytic Geometry and Calculus I*	4
CHEM 111—Principles of Chemistry I*	4
PSY 154—Introduction to Psychology	3
GEO 100—Fundamentals of Geography	3
	17

Second Semester

ENG 102—Composition II	3
MATH 275—Analytic Geometry and Calculus II*	4
CHEM 112—Principles of Chemistry II*	4
FNA 160—Appreciation of the Fine Arts	3
MATH 260—FORTRAN Programming I*	3
	17

SECOND YEAR

First Semester

MATH 276—Analytic Geometry and Calculus III*	4
PHYS 231—Engineering Physics I*	4
PHYS 231A—Engineering Physics I Lab*	1
ECON 201—Principles of Economics I	3
ENG 202—Introduction to Literature	3
	15

Second Semester

MATH 363—Differential Equations*	3
PHYS 232—Engineering Physics II*	4
PHYS 232A—Engineering Physics II Lab*	1
PHYS 221—Statics*	3
ECON 202—Principles of Economics II	3
	14

*core courses

Course descriptions begin of page 91

English

(606) 783-2185
103 Combs Building
Department of English, Foreign Languages, and Philosophy
College of Arts and Sciences

Faculty—M. Boisseau, G. Campbell, B. Clarke, G. R. Dobler, M. Glasser, F. Helphinstine, J. LeMaster, I. Lowe, G. Mays, E. Morrow, R. Orlich, E. Payne, C. Pelfrey, B. Peters, G. Rogers, J. Rogers, T. Stroik, M. K. Thomas, E. Young

Bachelor of Arts

The English curriculum has a two-fold purpose. It seeks to make a contribution to the general education of all students by providing them with the study of writing so that they may use their language as effectively and precisely as possible and by introducing them to the sympathetic understanding of literature so that their personal lives will be enriched by literary art. It prepares students for such vocations as teaching, publishing, business, public relations, and for further professional studies.

Requirements

In addition to the requirements listed, a minimum of two semesters (6 hrs.) of a foreign language is required of students completing an area or major in English. Four semesters (12 hrs.) of a foreign language are recommended.

Area of Concentration (Teaching)

	Sem. Hrs.
American literature surveys (elect one)	3
ENG 341—American Literature to 1850	
ENG 342—American Literature since 1985	
British literature surveys	6
ENG 331—British Literature to 1750	
ENG 332—British Literature since 1750	
English grammar (elect one)	3
ENG 315—Structure of English	
ENG 505—Linguistics: Grammar	
English linguistics (elect one)	3
ENG 305—Introduction to Linguistics	
ENG 315—Structure of English	
ENG 393—History of the English Language	
ENG 501—General Semantics	
ENG 505—Linguistics: Grammar	
Writing (elect course from 200-500 level)	3
ENG 500—Studies in English for Teachers	3
ENG 535—Shakespeare	3
English electives (excludes 100 level courses)	15
Of these 15 hours, a minimum of 12 hours of 300-500 level courses must be taken, including 6 hours from the following:	
ENG 344—The Short Story and the Novel	
ENG 436—The English Renaissance	
ENG 441—Neoclassical Writers	
ENG 442—Romantic Writers	
ENG 443—Victorian Writers	
ENG 444—Twentieth Century British Literature	
ENG 466—American Poetry	

(continued on next page)

ENG 499—Seminar: Major Writers	
ENG 528—Literary Criticism	
ENG 533—The English Novel	
ENG 534—Chaucer	
ENG 539—Milton	
ENG 545—Seventeenth Century British Literature	
ENG 552—Early Dramatic Literature	
ENG 553—Modern Drama	
ENG 561—Studies in American Literary Periods	
ENG 563—American Fiction	
Communications	
SPCH 200—Oral Interpretation	3
Theatre requirement (elect one)	3
THEA 100—Fundamentals of the Theatre	
THEA 110—Introduction to the Theatre	
Theatre elective (elect one)	3
THEA 200—Introduction to Dramatic Literature	
THEA 300—Elements of Play Production	
THEA 354—Theatre History	
THEA 375—Creative Dramatics	
JOUR 201—News Writing and Reporting	3
Journalism elective (elect course from 200-500 level)	3
	54

In addition to the 54 hour requirement listed above, students pursuing the English teaching area must also take at least 6 sem. hrs. of a foreign language, EDSE 576—Reading in the Secondary School, and complete the requirements of the Teacher Education Program and Professional Laboratory Experience. The area in English does not include the general education requirements in composition (6 sem. hrs.) and speech (3 sem. hrs.).

Major

	Sem. Hrs.
General education literature (elect one)	3
ENG 202—Introduction to Literature	
ENG 211—Introduction to World Literature I*	
ENG 212—Introduction to World Literature II	
*ENG 211 is recommended for English majors seeking teacher certification.	
American literature surveys (elect one)	3
ENG 341—American Literature to 1850	
ENG 342—American Literature since 1850	
British literature surveys	6
ENG 331—British Literature to 1750	
ENG 332—British Literature since 1750	
English language* (elect one)	3
ENG 305—Introduction to Linguistics	
ENG 315—Structure of English	
ENG 393—History of the English Language	
ENG 501—General Semantics	
ENG 505—Linguistics: Grammar	
*English majors seeking teacher certification must choose ENG 315 or 505, and must take an additional 3 sem. hrs. from the courses listed above in place of one of the electives below.	
Writing (elect course from 200-500 level)	3
ENG 535—Shakespeare	3
**English electives (excludes 100 level courses)	12
	33

**Of these 12 hours, a minimum of 9 hours of 300-500 level courses must be taken, including 6 hours from the following courses (English majors seeking teacher certification must take ENG 500—Studies in English for Teachers, and may take it in place of one of the courses on the list):

ENG 344—The Short Story and the Novel
ENG 436—The English Renaissance
ENG 441—Neoclassical Writers
ENG 442—Romantic Writers
ENG 443—Victorian Writers

ENG 444—Twentieth Century British Literature
ENG 466—America Poetry
ENG 499—Seminar: Major Writers
ENG 528—Literary Criticism
ENG 533—The English Novel
ENG 534—Chaucer
ENG 539—Milton
ENG 545—Seventeenth Century British Literature
ENG 552—Early Dramatic Literature
ENG 553—Modern Drama
ENG 560—American Literary Periods
ENG 563—American Fiction

In addition to the 33 hour requirement listed above, the English major seeking teacher certification must take EDSE 576—Reading in the Secondary School and complete the Department of Education's requirements for the Teacher Education Program and Professional Laboratory Experience.

In addition to the 33 hour requirement listed above, all English majors must complete at least 6 sem. hrs. of a foreign language. The major does not include the general education requirement in composition (6 sem. hrs.).

Minor in English

	Sem. Hrs.
American literature surveys (elect one)	3
ENG 341—American Literature to 1850	
ENG 342—American Literature since 1850	
British Literature Surveys	6
ENG 331—British Literature to 1750	
ENG 332—British Literature since 1750	
English language* (elect one)	3
ENG 305—Introduction to Linguistics	
ENG 315—Structure of English	
ENG 393—History of the English Language	
ENG 501—General Semantics	
ENG 505—Linguistics: Grammar	
*Teaching minors must choose ENG 315 or ENG 505	
Writing (Elect one from 200-500 level courses)	3
English electives (200-500 level courses):	
6 sem hrs. of which must be 300-500 level courses.	9
*Teaching minors must include ENG 535—Shakespeare and ENG 500—Studies in English for Teachers.	

In addition to the 24 sem. hr. requirement listed above, teaching minors must take EDSE 576—Reading in the Secondary School. The minor in English does not include the general education requirement in composition (6 sem. hrs.).

Minor in Linguistics

This minor may be appealing to those majoring in professional fields such as law, business, or anywhere that communication skills and use of the computer may be emphasized without calling for the expertise of an individual trained in depth in technical writing or literature.

Language courses	12
ENG 305—Introduction to Linguistics	
ENG 315—Structure of English	
ENG 505—Linguistics: Grammar	
One of the following:	
ENG 393—History of the English Language	
ENG 501—General Semantics	
Writing courses (elect two)	6
ENG 293—Creative Writing I	
ENG 391—Advanced Expository Writing	
ENG 591—Technical Writing I	
ENG 592—Technical Writing II	

ENG 593—Fiction and Poetry Writing I	
ENG 594—Fiction and Poetry Writing II	
ENG 597—Technical Editing	
Data processing courses (elect one)	3
DATA 201—Introduction to Computers	
DATA 202—Computer Programming BASIC	
DATA 301—Microcomputers	
Literature elective	24

The minor in linguistics does not include the general education requirement in composition (6 sem. hrs.).

Minor in Creative Writing

The minor in creative writing is designed for students who wish to develop their skills in writing fiction and poetry.

	Sem. Hrs.
Language courses	6
ENG 315—Structure of English	
One of the following:	
ENG 305—Introduction to Linguistics	
ENG 393—History of the English Language	
ENG 501—General Semantics	
ENG 505—Linguistics: Grammar	
Any course in French, German, Latin, Russian, or Spanish	
Writing courses (elect from the following)	10
ENG 293—Creative Writing I	
ENG 391—Advanced Expository Writing	
ENG 593—Fiction and Poetry Writing I	
ENG 594—Fiction and Poetry Writing II	
ENG 596—Seminar in Creative Writing (1 sem. hr.)	
JOUR 364—Feature Writing	
THEA 512—Playwriting	
Literature electives (300-500 level courses)	22

The minor in creative writing does not include the general education requirements in composition (6 sem. hrs.) or literature (3 sem. hrs.).

Minor in Technical Communication

The minor in technical communications is designed for students preparing for any career in which effective writing is important and for student preparing to become professional technical, scientific, or business writers and editors.

	Sem. Hrs.
Language	6
ENG 315—Structure of English	
One of the following courses:	
ENG 305—Introduction to Linguistics	
ENG 393—History of the English Language	
ENG 501—General Semantics	
ENG 505—Linguistics: Grammar	

Writing	9
ENG or JOUR 591—Technical Writing I	
ENG or JOUR 591—Technical Writing II	
ENG 597—Technical Editing	
Other courses (elect from the following)	6
DATA 201—Introduction to Computers	
One of the following graphics skill courses:	
IET 102—Graphic Arts I	
IET 103—Technical Drawing I	
IET 202—Graphic Arts II	
IET 203—Technical Drawing II	
IET 322—Photography	
JOUR 285—Introduction to Photojournalism	
ART 104—Lettering, Layout and Design	
ART 291—Color and Design	

The minor in technical communication does not include the general education requirements in composition (6 sem. hrs.) or literature (3 sem. hrs.).

Minor in Literature

	Sem. Hrs.
American or British Literature Surveys	3
(elect one of the following:)	
ENG 331—British Literature to 1750	
ENG 332—British Literature since 1750	
ENG 341—American Literature to 1850	
ENG 342—American Literature since 1850	
ENG 545—Shakespeare	3
Literature and literary criticism	9
(electives to be selected from 300-500 level courses)	
Philosophy	3
(elect one of the following:)	
PHIL 200—Introduction to Philosophy	
PHIL 308—Philosophy of the Arts	
PHIL 309—Existentialism	
PHIL 313—American Philosophy	
PHIL 410—Contemporary Philosophy	
PHIL 505—History of Philosophy I	
PHIL 506—History of Philosophy II	
PHIL 389—Honors Seminar in Philosophy	
History	3
(elect one of the following courses:)	
HIS 141—Introduction to Early American History	
HIS 142—Introduction to Recent American History	
HIS 324—The New South	
HIS 334—The Renaissance and Reformation	
HIS 351—England to 1660	
HIS 352—England since 1660	
HSI 551—Religion in American History	

The minor in literature does not include the general education requirements in composition (6 sem. hrs.) or literature (3 sem. hrs.).

Course descriptions begin on page 91

Environmental Science

(606) 783-2952 (J. Howell)
 (606) 783-2963 (M. Pryor)
 317 Lappin Hall
 Department of Biological and Environmental Sciences
 College of Arts and Sciences

Faculty—D. Brumagen, F. Busroe, G. DeMoss (chair), J. Howell,
 D. Magrane, D. McNeely, L. Meade, T. Pass, M. Pryor, D. Saxon, H. Setser,
 C. Van Bell

Bachelor of Science

An environmental science major with four options is offered. The four options are in ecology; geology; social sciences and economics; and chemistry and physics. With careful planning between the student and the advisor, a teaching certificate can be obtained in one of the option fields. Private industry, governmental agencies, municipalities, public utilities, and ecological contracting companies are primary sources of employment.

Major

All majors must take the environmental science core.

	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1
GEOS 100—Physical Geology	1
BIOL 355—Population, Resources, Environment	3
BIOL 356—Environmental Biology	3
GEOS 376—Environmental Geology	3
ECON 501—Environmental Economics	3
GOVT 505—Environmental Politics and Policy	3
GEOS 505—Conservation of Natural Resources	3
	20

All environmental science majors are also requested to take certain complementary general education courses to complete university requirements.

Ecology Option

	Sem. Hrs.
Environmental science core courses	20
BIOL 171—Principles of Biology	4
BIOL 210—General Zoology	4
BIOL 215—General Botany	4
BIOL 357—Environmental Testing Methods	3
BIOL 510—Limnology	3
BIOL 561—Ecology	3
Elective from Biology 318, 334, 530, 531, 535, or 537	3

Supplemental Requirements

	Sem. Hrs.
CHEM 111—Principles of Chemistry I	4
CHEM 112—Principles of Chemistry II	4
GEOS 240—Oceans	3
MATH 353—Statistics	3

Geology Option

	Sem. Hrs.
Environmental science core courses	20
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	3
GEOS 240—Oceans	3
GEOS—electives approved by advisor	9

Supplemental Requirements

	Sem. Hrs.
MATH 353—Statistics	3
BIOL 357—Environmental Testing Methods	3
CHEM 111—Principles of Chemistry I	4
PHYS 201—Elementary Physics I	4
CHEM 112—Principles of Chemistry II	4
OR	
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1

Social Sciences and Economics Option

	Sem. Hrs.
Environmental science core courses	20
GEO 211—Economic Geography	3
GEO 390—Weather and Climate	3
ECON 201—Principles of Economics I	3
ECON 541—Public Finance	3
GOVT 366—Political Geography	3
GOVT 540—Public Administration	3
Social sciences and economics electives approved by advisor	12

Supplemental Requirements

	Sem. Hrs.
GEOS 240—Oceans	3
BIOL 357—Environmental Testing Methods	3

Chemistry and Physics Option

	Sem. Hrs.
Environmental science core courses	20
CHEM 111—Principles of Chemistry I	4
CHEM 112—Principles of Chemistry II	4
CHEM 223—Quantitative Analysis	4
CHEM 460—Instrumental Analysis	4
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1
PHYS 350—Nuclear Science	4
PHYS 361—Fundamentals of Electronics	3

Supplemental Requirements

	Sem. Hrs.
GEOS 240—Oceans	3
MATH 353—Statistics	3
BIOL 357—Environmental Testing Methods	3

Minor

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 240—Oceans	3
GEOS 376—Environmental Geology	3
BIOL 355—Population, Resources, Environment	3
BIOL 356—Environmental Biology	3
GOVT 505—Politics of Ecology	3
Electives from PHIL 303, MATH 353, BIOL 357, ECON 501, GEO 505 and BIOL 553 (only one course may be chosen from last two listed)	6
	22

Course descriptions begin on page 91

Farm Production Technology

(606) 783-2662

332 Reed Hall

Department of Agriculture and Natural Resources

College of Arts and Sciences and Technology

Faculty—J. Bendixen, J. Martin, T. McMillan, M. Norris, B. Rogers,
J. Willard (chair), R. Wolfe

Associate of Applied Science (Two-Year Program)

The student must complete a minimum of the 64 semester hours of required courses in the following list. Additional course electives may also be taken in agriculture and related areas by students wishing greater depth in farm production technology.

Core Requirements

	Sem. Hrs.
Required courses	64
AGR 101—General Agriculture	1
AGR 133—Farm Livestock Production	3
AGR 180—Elementary Field Crops	3
AGR 203—Agricultural Economics	3
AGR 211—Soils	3
AGR 215—Horticulture	3
AGR 316—Feeds and Feeding	3
ENG 101—Composition I	3
ENG 192—Technical Composition	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
BIOL 150—Introduction to Plant Science	3
ECON 101—Introduction to American Economy	3
Approved electives	29
(see available options below)	

Animal Science Option

	Sem. Hrs.
AGR 231—Livestock Judging	3
AGR 242—Light Horse Husbandry	3
AGR 330—Livestock Improvement	3
AGR 331—Advanced Livestock Judging	3
AGR 336—Dairy Production	3
AGR 337—Poultry Production	3
AGR 342—Horse Production	3
AGR 343—Beef Production	3
AGR 344—Swine Production	3
AGR 345—Sheep Production	3

Agriculture Management Option

	Sem. Hrs.
AGR 205—Farm Records	3
AGR 301—Farm Management	3
AGR 302—Agriculture Finance	3
AGR 303—Land Economics	3
AGR 305—Marketing of Farm Products	3
AGR 385—Agribusiness Management	3
AGR 386—Introductory Agricultural Policy	3
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
FIN 252—Mathematics of Finance	3
MKT 350—Salesmanship	3
FIN 264—Personal Finance	3
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3

Crop Science

	Sem. Hrs.
AGR 205—Farm Records	3
AGR 207—Land Conservation and Forest Management	3
AGR 251—Introduction to Agriculture Mechanics	3
AGR 301—Farm Management	3
AGR 303—Land Economics	3
AGR 308—Weed Control	3
AGR 311—Soil Conservation	3
AGR 312—Soil Fertility and Fertilizers	3
AGR 341—Apiculture	3
AGR 350—Farm Power and Machinery Management	3
AGR 384—Forage Crops	3
BIOL 215—General Botany	3
BIOL 304—Genetics	3
BIOL 334—Entomology	3

Horticulture Option

	Sem. Hrs.
AGR 212—Landscape Plants	3
AGR 231—Landscape Gardening	3
AGR 312—Soil Fertility and Fertilizers	3
AGR 314—Plant Propagation	3
AGR 315—Fruit Production	3
AGR 317—Floral Design	3
AGR 320—Principles of Vegetable Production	3
AGR 321—Greenhouse Production I	3
AGR 322—Greenhouse Production II	3
AGR 325—Turf Management	3
AGR 326—Nursery Management	3
AGR 327—Advanced Landscape Design	3
AGR 341—Apiculture	3
AGR 350—Farm Power and Machinery Management	3
BIOL 334—Entomology	3

Course descriptions begin on page 91

Fashion Merchandising

606-783-2966

100 Lloyd Cassity Building

Department of Home Economics

College of Applied Sciences and Technology

Faculty—C. Taylor

The two-year associate degree program in fashion merchandising prepares students for employment by retail stores and manufacturers of clothing and textile products. Career positions include buyer, assistant buyer, fashion coordinator, bridal consultant, comparison shopper, and fashion consultant. Many prefer to operate self-owned businesses.

Associate of Applied Science Degree (Two-Year Program)

General Education Requirements

	Sem. Hrs.
ENG 101—Composition I	3
ENG 102—Composition II	3
General education electives	9
	15

Program Requirements

HEC 101—Orientation to the Home Economics Profession	1
HEC 141—Introduction to Textiles and Clothing	3
HEC 200—Family Perspectives	3
HEC 241—Clothing Production Studio	3
HEC 250—Visual Merchandising	3
HEC 280—Apparel Merchandising	3
HEC 290—Introduction to the Apparel Industry	3
HEC 339—Cooperative Education	4
HEC 343—Textiles for Interiors	3
HEC 344—Historic Costume	3
DATA 201—Introduction to Computers	3
MKT 304—Marketing	3
MKT 350—Salesmanship	3
MKT 451—Retail Merchandising	3
MNGT 310—Small Business Organization	3
PDI 100—Personal Development Institute	1
Approved electives	4
	49

Students are required to complete 15 semester hours of general education courses. Courses include ENG 101, ENG 102 or 192, and 9 semester hours from at least three of the 10 designated categories.

Course Requirements

HEC 141—Introduction to Textiles and Clothing	
OR	
*Approved elective	3
HEC 250—Visual Merchandising	3
HEC 280—Apparel Analysis	
OR	
*MNGT 310—Small Business Organization	3
HEC 290—Introduction to the Apparel Industry	3
HEC 450—Fashion Merchandising Techniques	3
MKT 304—Marketing	3
MKT 350—Salesmanship	3
MKT 451—Retail Merchandising	3
	24

*Course substitution when requirement is fulfilled in textile and clothing major.

Course descriptions begin on page 91

Finance

(606) 783-2152, 783-2174
222 Combs Building
School of Business and Economics
College of Professional Studies

Faculty—A. Conyers, B. Davis, V. McGlone, R. Peavler,
W. Whitaker (associate dean)

Bachelor of Business

Finance Option

General Education Requirements

The following specific courses must be included in the 42 hour general education component (see general education requirements).

	Sem. Hrs.
SPCH 370—Business and Professional Speech	3
MATH 160—Mathematics for Business and Economics	3
MATH 354—Business Statistics	3
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3

Core Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
ECON 350—Microeconomic Theory	3
FIN 360—Business Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
MNGT 306—Production Management	3
MNGT 472—Business Policies and Problems	3
OADM 321—Business Communications	3
	33

Program Requirements

	Sem. Hrs.
BBA Core	33
ACCT 387—Income Tax	3
FIN 343—Investments	3
FIN 460—Advanced Business Finance	3
FIN 560—Financial Markets	3
FIN 590—Seminar in Financial Theory and Practice	3
*Approved electives	6
	54

Course descriptions begin on page 91

Foodservice Administration

(606) 783-2966
100 Lloyd Cassity Building
Department of Home Economics
College of Applied Sciences and Technology

Faculty—N. Graham, D. Patton

Bachelor of Science

Major

The major in foodservice administration prepares graduates for a career in foodservice management. The program includes business and management courses in order to prepare students to perform successfully in the field. A business minor is required.

Core Requirements

	Sem. Hrs.
HEC 101—Orientation to the Home Economics Profession	1
HEC 200—Family Perspectives	3
HEC 201—Principles of Nutrition	3
HEC 363—Human Resource Management	3
HEC 471—Seminar	1
	11

Program Requirements

HEC 130—Elementary Food Preparation	3
HEC 132—Foodservice Operations	3
HEC 136—Dining Room Procedures and Beverage Control Procedures	3
HEC 231—Meal Management	3
HEC 234—Computer Assisted Foodservice Management	3
HEC 330—Quantity Food Purchasing	3
HEC 334—Quantity Food Preparation	3
HEC 335—Equipment and Facilities Planning	3
HEC 336—Institutional Organization and Management	3
HEC 337—Food Production Management	3
HEC 438—Experimental Foods	3
	33

Supplemental Requirements

ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3
MNGT 301—Principles of Management	3
MNGT 311—Personnel Management	3
MNGT 411—Labor Relations	3
	21

Minor

Students who major in business or other related fields may choose the minor to enhance their understanding of food preparation, service, and management.

Course Requirements

	Sem. Hrs.
HEC 130—Elementary Foods Preparation	3
HEC 132—Foodservice Operations	3
HEC 136—Dining Room and Beverage Control Procedures	3
HEC 234—Computer Assisted Foodservice Management	3
HEC 330—Quantity Food Purchasing*	3
HEC 334—Quality Food Purchasing	3
HEC 335—Equipment and Facilities Planning	3
HEC 337—Food Production Management	3
	24

Course descriptions begin on page 91

Foodservice Technology

(606) 783-2966
100 Lloyd Cassity Building
Department of Home Economics
College of Applied Sciences and Technology

Faculty—N. Graham, D. Patton

The associate degree program in foodservice technology is designed to prepare students for entry level management position in foodservice operations. Course work and practical experience are included in quantity food production and production management.

Associate of Applied Science (Two-Year Program)

General Education Requirements

	Sem. Hrs.
ENG 101—Composition I	3
ENG 192—Technical Composition	3
General Education Electives	9
	15

Program Requirements

HEC 101—Orientation to the Home Economics Profession	1
HEC 130—Elementary Foods Preparation	3
HEC 132—Foodservice Operations	3
HEC 136—Dining Room Procedures and Beverage Control	3
HEC 200—Family Perspectives	3
HEC 201—Principles of Nutrition	3
HEC 231—Meal Management	3
HEC 234—Computer Assisted Food Service Management	3
HEC 239—Cooperative Field Experience (4 hours)	4
HEC 334—Quantity Food Preparation	3
HEC 337—Food Production Management	3
ECON 201—Principles of Economics I	3
MNGT 160—Introduction to Business	3
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
Approved electives	6
	50

Students are required to complete 15 semester hours of general education courses. Courses include ENG 101, ENG 102 or 192, and 9 semester hours from at least three of the 10 designated categories.

Course descriptions begin on page 91

French

(606) 783-2185
103 Combs Building
Department of English, Foreign Languages, and Philosophy
College of Arts and Sciences

Faculty—M. Netherton

The French curriculum at Morehead State University teaches the language and literature of France, whereby students will perceive areas of thought and action different from their own. More specifically, it surveys French civilization through its literature as a complex development of France's history, geography, fine arts, and political and social institutions. It helps students attain a comfortable proficiency in speaking, reading, and writing French. Finally, it trains prospective teachers in techniques of foreign language teaching.

NOTE: French 202 or the equivalent is prerequisite to all courses numbered 300 or above.

Bachelor of Arts

Major

	Sem. Hrs.
FRN 101—Beginning French I	3
FRN 102—Beginning French II	3
FRN 201—Intermediate French	3
FRN 202—Conversation and Composition	3
FRN 203—Introduction to France	3
FRN 435—Twentieth Century Literature	3
Approved electives	12
	30

Minor

	Sem. Hrs.
FRN 101—Beginning French I	3
FRN 102—Beginning French II	3
FRN 201—Intermediate French	3
FRN 202—Conversation and Composition	3
FRN 203—Introduction to France	3
Approved electives	6
	21

Students with high school credit in French may be placed in a course more advanced than 101 to begin their studies.

Students who expect to teach French should choose FRN 405 as one of their electives.

Course descriptions begin on page 91

Geography

(606) 783-2090, 783-2655
350 Rader Hall
Department of Geography, Government, and History
College of Arts and Sciences

Faculty—R. Burns, G. Cox, R. Gould, J. Robinson

The Department of Geography, Government, and History offers a well-balanced undergraduate program in geography which includes a 30-semester hour major and a 21-semester hour minor.

Appropriate educational experiences and training are provided to prepare persons for entry into careers in teaching, government service, planning, and resource management.

Bachelor of Arts

Major

	Sem. Hrs.
GEO 100—Fundamentals of Geography	3
GEO 101—Physical Geography	3
GEO 211—Economic Geography	3
GEO 241—United States and Canada	3
GEO—electives in systematic geography	9
GEO—electives in regional geography	9
Minimum for a major	30

Minor

	Sem. Hrs.
GEO 100—Fundamentals of Geography	3
GEO 101—Physical Geography	3
GEO 211—Economic Geography	3
GEO 241—United States and Canada	3
GEO—Systematic geography elective	3
GEO—electives	6
Minimum for a minor	21

*Electives in systematic and regional geography must be selected with the approval of the student's faculty advisor.

**Students desiring a teacher's certificate must complete the required courses in professional education and the professional semester. College algebra and trigonometry or statistics are suggested electives for students who plan to pursue a graduate degree in geography.

Course descriptions begin on page 91

Geology

(606) 783-2914
206 Lappin Hall
Department of Physical Sciences
College of Arts and Sciences

Faculty—D. Hylbert, R. Lierman, C. Mason, J. Phillely

The geoscience program attempts: (1) to train students for careers as professional geologists in industry and county, state, and federal programs; (2) to prepare earth-science teachers for the public schools; (3) to prepare students to enter graduate school; or (4) to offer supportive courses needed by students in other disciplines.

Bachelor of Science

Major

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	3
GEOS 262—Mineralogy	4
GEOS 276—Geologic Methods	3
GEOS 300—Petrology	3
GEOS 315—Stratigraphy and Sedimentation	4
GEOS 325—Structural Geology	3
GEOS 379—Paleontology	4
GEOS—electives approved by advisor	3
SCI 471—Seminar	1
	32

Supplemental Requirements*

	Sem. Hrs.
BIOL 210—General Zoology	4
CHEM 111—Principles of Chemistry I	4
CHEM 112—Principles of Chemistry II	4
PHYS 201—Elementary Physics I	3

PHYS 201A—Elementary Physics I Lab	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1
MATH—electives approved by advisor	6-8
	25-27

Students are also urged to take MATH 175, DATA 202 or 260 and a summer geology field camp.

*However, students who do not plan to attend graduate school may waive, or make substitutions for, the supplemental requirements; approval by the advisor is required.

Minor

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	3
GEOS 250—Minerals and Rocks (or GEOS 262—Mineralogy)	3-4
GEOS 276—Geologic Methods	3
GEOS 410—Geological History of Plants and Animals	3
GEOS—electives approved by department head	5
	21 or 22

Course descriptions begin on page 91

German

(606) 783-2185
103 Combs Building
Department of English, Foreign Languages, and Philosophy
College of Arts and Sciences

Faculty—B. Hamilton

There are no academic programs in German but courses are available. Please refer to the course description section for course offerings.

Course descriptions begin on page 91

Government

(606) 783-2090, 783-2655
350 Rader Hall
Department of Geography, Government, and History
College of Arts and Sciences

Faculty—L. Back, J. Bizzel, W. Green, K. Schafer

The Department of Geography, Government, and History offers courses in major areas of study, including American government, state and local government, comparative

government, international relations, group dynamics, consitutional law, and public and personnel administration.

Bachelor of Arts Degree

Major

	Sem. Hrs.
GOVT 141—Government of the United States	3
GOVT 242—State and Local Government	3
GOVT 330—Parliamentary Democracies	3
OR	
GOVT 450—International Relations	3
GOVT—elective in international field	3
Approved electives in government	18
Minimum for a major	30

Minor

	Sem. Hrs.
GOVT 141—Government of the United States	3
GOVT 242—State and Local Government	3
GOVT 330—Parliamentary Democracies	3
OR	
GOVT 450—International Relations	3
GOVT—elective in international field	3
Approved electives in government	9
Minimum for a minor	21

Course descriptions begin on page 91

Graphic Arts Technology

(606) 783-2013
210 Lloyd Cassity Building
Department of Industrial Education and Technology
College of Applied Sciences and Technology

Faculty—E. Nass

Associate of Applied Science (Two-Year Program)

General Education Requirements

The following specific courses must be included in the general education component (see general education requirements).

	Sem. Hrs.
ENG 101—Composition I	3
MATH 135—Math for Technical Students	3
DATA 201—Introduction to Computers	3
ENG 192—Technical Composition	3
SPCH 370—Business and Professional Speech	3
	15

Core Requirements

GCT 102—Graphic Arts I	3
GCT 103—Technical Drawing I	3
OADM 111—Beginning Typewriting	3

(continued on next page)

GCT 202—Graphic Arts II	3
IET 317—Time and Motion Study	2
GCT 350—Machine Composition I	3
GCT 351—Graphic Duplication	2
GCT 322—Photography	2
Electives	13
JOUR 305—Newspaper Typography and Design	3
IET 320—Supervisory Practices	3
GCT 302—Offset Lithography	3
GCT 450—Machine Composition II	3
IET 319—Quality Control	3
	49

Course descriptions begin on page 91

Health

(606) 783-2180

201 Laughlin Health Building

Department of Health, Physical Education, and Recreation
College of Professional Studies

Faculty—E. Bentley (chair), L. Brown, E. Nesbitt, G. Osborne, J. Osborne,
P. Raines, H. Sweeney

Bachelor of Arts Degree

Requirements for a Major

	Sem. Hrs.
PHED 301—Evaluation in Health, Physical Education, and Recreation	3
PHED 402—Kinesiology	3
PHED 432—Physiology of Exercise	3
HLTH 205—Mental Health	3
HLTH 303—Community Health	3
HLTH 304—Health in the Secondary School	2
HLTH 320—Elements of Nutrition	3
HLTH 360—Family Health	3
HLTH 475—School Health Program	3
HLTH 508—Principles of General School Safety	3
HLTH 518—Use and Abuse of Drugs	3
	32

Requirements for a Minor

	Sem. Hrs.
PHED 402—Kinesiology	3
PHED 432—Physiology of Exercise	3
HLTH 320—Elements of Nutrition	3
HLTH 360—Family Health	3
HLTH 475—The School Health Program	3
HLTH 508—Principles of General School Safety	3
HLTH 518—Use and Abuse of Drugs	3
HLTH 304—Health in the Secondary School	12
	23

Requirements for Endorsement in Driver Education

	Sem. Hrs.
HLTH 203—Safety and First Aid	3
HLTH 200—Introduction to Driver Education	3
HLTH 307—Intermediate Driver Education	3
HLTH 400—Advanced Driver Education	3
	12

Course descriptions begin on page 91

History

(606) 783-2090, 783-2655

350 Rader Hall

Department of Geography, Government, and History
College of Arts and Sciences

Faculty—D. Flatt, C. Holt, B. Jackson (chair), J. Kleber, P. LeRoy,
S. Sprague, G. Young

Bachelor of Arts

The courses offered by the department are classified in three fields: American history, European history, non-Western history (African, Latin American, Middle Eastern, and Asian studies). Advanced courses should represent a cross section of the prior three areas of concentration.

For students seeking teacher certification, HIS 375—The Teaching of Social Studies, is also required (applies to majors, minors, and area of concentration), preferably to be taken the semester prior to the professional term.

Major

	Sem. Hrs.
HIS 131—Intro. to Civilization I	3
HIS 132—Intro. to Civilization II	3
HIS 141—Intro. to Early American History	3
HIS 142—Intro. to Recent American History	3
Advanced credit in history	18
Minimum for a major	30

Minor

	Sem. Hrs.
HIS 131—Intro. to Civilization I	3
HIS 132—Intro. to Civilization II	3
HIS 141—Intro. to Early American History	3
HIS 142—Intro. to Recent American History	3
Advanced credit in history	9
Minimum for a minor	1

Course descriptions begin on page 91

Home Economics

(606) 783-2966

100 Lloyd Cassity Building

Department of Home Economics
College of Applied Sciences and Technology

Faculty—J. Ellington

Bachelor of Science

Area of Concentration in Vocational Home Economics

The broad-based program requires a balance in all areas of home economics and supporting courses in science, math, humanities, history, economics, and professional education.

This program qualifies students to teach in middle grades, senior high school, and adult home economics programs. The student must complete 1,000 hours of work experience to qualify for a vocational teaching certificate. The student must have 2,000 hours of work experience in a specific area, like child care, to qualify for a gainful home economics teaching certificate.

Core Requirements

	Sem. Hrs.
HEC 101—Orientation to the Home Economics Profession	1
HEC 101—Family Perspectives	3
EC 201—Principles of Nutrition	3
HEC 363—Human Resource Management	3
HEC 471—Seminar	1

Program Requirements

HEC 130—Elementary Food Preparation	3
HEC 141—Introduction to Textiles and Clothing	3
HEC 231—Meal Management (required for Home Management House)	3
HEC 241—Clothing Production Studio	3
HEC 351—Housing	3
HEC 355—Child Growth and Development	3
HEC 356—Pre-School Administration	3
HEC 451—Residential Textiles and Furnishings	3
HEC 454—Supervised Home Management Experiences	4
HEC 470—Methods of Teaching Vocational Home Economics	3
HEC 573—Curriculum Development	3
HEC electives	14
	48

Supplemental Requirements

EDF 207—Foundations of Secondary Education	3
EDF 211—Human Growth and Development	3
EDF 311—Learning Theories in the Classroom	3
EDSE 312—Teaching Skills and Media	3
EDSP 332—Teaching the Exceptional Student	3
EDSE 415—Teacher in Today's School	3
EDSE 416—Student Teaching	12
	29

Specific General Education courses required for Vocational Teaching Certificate 45

1,000 hours work experience required for Vocational Teaching Certificate.

The professional semester will immediately follow HEC 470 and HEC 573.

Major in General Home Economics

Students who have an interest in all aspects of home economics with no interest in specialization will find meaning in this general program. Electives can serve to tailor the degree requirements to meet personal goals. Employment opportunities are dependent upon individual capabilities. This major provides an opportunity to relate home economics to other areas of interest through selection of complementary minors.

Core Requirements

	Sem. Hrs.
HEC 101—Orientation to the Home Economics Profession	1
HEC 200—Family Perspectives	3
HEC 201—Principles of Nutrition	3
HEC 363—Human Resource Management	3
HEC 471—Seminar	1
	11

Program Requirements

HEC 130—Elementary Food Preparation	3
HEC 131—Introduction to Textiles and Clothing	3
HEC 251—Residential Equipment	3
HEC 355—Child Growth and Development	3
PDI 100—Personal Development Institute I Approved home economics electives	15
	28

Supplemental Requirements

DATA 201—Introduction to Computers	3
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Minor in General Home Economics

The minor in general home economics is representative of the various subject matter areas in home economics. The program is helpful in providing skills to improve quality of life.

Course Requirements

	Sem. Hrs.
Required courses	21
HEC 101—Orientation to the Home Economics Profession	1
HEC 130—Elementary Food Preparation	3
HEC 141—Introduction to Textiles and Clothing	3
HEC 200—Family Perspectives	3
HEC 201—Principles of Nutrition	3
HEC 363—Human Resource Management	3
PDI 100—Personal Development Institute	1
Approved home economics electives	7
	24

Course descriptions begin on page xx

Horsemanship

(606) 783-2800
Derrickson Agricultural Complex
Department of Agriculture and Natural Resources
College of Applied Sciences and Technology

Faculty—G. Carswell, T. McMillan, J. Willard (chair)

Minor

The student must complete a minimum of the 21 semester hours of agriculture courses in the following list and a major selected in another field. General course electives may also be taken in horsemanship, agriculture, and related areas by students wishing greater depth in horsemanship.

Course Requirements

Sem. Hrs.	
Required courses in agriculture	21
AGR 121—Equitation	3
AGR 242—Light Horse Husbandry	3
AGR 316—Feeds and Feeding	3
AGR 332—Advanced Horsemanship	3
AGR 342—Horse Production	3
Approved agriculture electives	6

Course descriptions begin on page xx

Industrial Education

(606) 783-2013

210 Lloyd Cassity Building

Department of Industrial Education and Technology
College of Applied Science and Technology

Faculty—J. Van Hoose, R. Tucker

Bachelor of Science

Area of Concentration

(Orientation/Exploration Level)

The student must complete a minimum of 46 semester hours in industrial education and 35 semester hours in professional teacher education.

General Education Requirements

The following specific courses must be included in the 45 hour general education component (see general education requirements) (2 hrs. approved general electives):

	Sem. Hrs.
HLTH 150—Personal Health	2
PHED—Activity Class	1
PSY 154—Introduction to Psychology	3
	6

Area Requirements

	Sem. Hrs.
GCT—Technical Drawing	6
EET—Electricity-Electronics	6
GCT—Graphic Arts	6
MFT—Metals-Manufacturing	6
IET—Power and Fluids	6
IET—Woods-Construction	6
IET—Seminar	1
IET—Approved industrial education electives	9
IET—Supervised work experience	0
	46

Teacher Education Requirements

	Sem. Hrs.
IET 390—Principles of Industrial Education	3
IET 392—Technical Curriculum and Media Development	3
IET 475—Teaching Methods in Industrial Education— Orientation and Exploration Levels	3
EDF 211—Human Growth and Development	3
EDF 311—Learning Theories in classroom	3
IET 478—Supervised Teaching Practicum In Industrial Education— Orientation and Exploration Levels	12
IET 496—Organization and Management of the Laboratory	2
Reading in the content area, reading as a development process, readability of materials, and diagnostic and remedial techniques.	
EDEL 330—Foundations of Reading	3
EDEL 332—Reading Strategies for Middle Grades	3
	35

Major

(Orientation/Exploration Level)

The student must complete a minimum of 30 semester hours in industrial education and 35 semester hours in professional teacher education.

General Education Requirements

The following specific courses must be included in the 45 hour general education component (see general education requirements)

	Sem. Hrs.
HLTH 150—Personal Health	2
PHED—Activity class	1
PSY 154—Introduction to Psychology	3
	6

Major Requirements

	Sem. Hrs.
GCT—Technical Drawing	6
EET—Electricity Electronics	3
MFT—Metals-Manufacturing	6
IET—Power and Fluids	3
IET—Woods-Construction	6
IET—Seminar	1
IET—Supervised Work Experience	0
GCT—Graphic Arts	3
Technical elective	2
	30

(Electives must be approved by the student's advisor with a maximum of nine semester hours in any one technical field.)

Professional Teacher Education Requirements

	Sem. Hrs.
IET 390—Principles of Industrial Education	3
IET 392—Technical Curriculum and Media Development	3
IET 475—Teaching Methods in Industrial Education— Orientation/Exploration levels	3
EDF 211—Human Growth and Development	3
EDF 311—Learning Theories in classroom	3
IET 478—Supervised Teaching Practicum in Industrial Education— Orientation and Exploration Levels	12
IET 496—Organization and Management of the Laboratory	2
Reading in the content area, reading as a development process, readability of materials, and diagnostic and remedial techniques.	
EDEL 330—Foundations of Reading	3
EDEL 332—Reading Strategies for Middle Grades	3
	35

Area of Concentration

(Preparation Level)

The following specific courses must be included in the 45 hour general education component (see general education requirements)

	Sem. Hrs.
HLTH 150—Personal Health	2
PHED—Activity Class	1
PSY 154—Introduction to Psychology	3
	6

Core Requirements

	Sem. Hrs.
IET 100—World of Technology	3
IET 320—Supervisory Practices	3
IET 364—Career and Vocational Guidance	3
IET 391—Trade and Technical Analysis	2
IET 422—Industrial Safety Standards and Enforcement	3
Seminar in Industrial Education	1
	15

Occupation Teaching Specialization

Vocational education-industrial education courses in the specific occupational area to be taught	24
	24

Technical Electives

Technical electives in vocational education-industrial education selected from the following areas: broadcasting technology, construction, drafting and design, electricity, electronics, graphic arts, machine tool, metals, plastics, power and fluids, welding, woods, mining, robotics engineering technology 13

Teacher Education

	Sem. Hrs.
IET 390—Principles of Industrial Education	3
IET 392—Technical Curriculum and Media Development	3
IET 393—Methods in Industrial Education	3
EDF 211—Human Growth and Development	3
EDF 311—Learning Theories in classroom	3
IET 394—Student Teaching in Vocational Industrial Education or 401 Seminar	8
IET 496—Organization and Management of the Laboratory	2

Supplemental Requirement (Work Experience)

The area of concentration at the preparation level shall include a work experience component consisting of a minimum of 2,000 hours of supervised work experience in the teachable industrial occupation.

All teacher applicants for initial certification in Kentucky shall complete the National Teacher Examinations for communication skill, general knowledge, professional knowledge, and the appropriate specialty test, meeting the standards set by the Kentucky State Department of Education (704 KAR 20:305).

Course descriptions begin on page 91

Industrial Supervision and Management Technology

(606) 783-2013
210 Lloyd Cassity Building
Department of Industrial Education and Technology
College of Applied Sciences and Technology

Faculty—R. Newton, J. VanHoose

Associate of Applied Science (Two-Year Program)

General Education Requirements

The following specific courses must be included in the general education component (see general education requirements):

	Sem. Hrs.
MATH 135—Mathematics for Technical Students	3
ENG 101—Composition I	3
ECON 101—Introduction to American Economy	3
ENG 192—Technical Composition	3
SPCH 370—Business and Professional Speech	3
	15

Core Requirements

	Sem. Hrs.
IET 100—World of Technology	3
GCT 103—Technical Drawing I	3
MFT 186—Manufacturing and Fabrication	3
EET 140—Basic Electricity	3
IET 160—Introduction to Power and Fluids	3
CON 103—Materials Testing	3
IET 320—Supervisory Practices	3
IET 319—Quality Control	3
IET 317—Time and Motion Study	2
MFT 386—NC-CNC Manufacturing Technology	3
IET 422—Industrial Safety Standards and Enforcement	3
MFT 286—Machine Tool Process	3
MNGT 301—Principles of Management	3
IET 327—Applied Industrial Management	3
DATA 201—Introduction to Computers	3
Technical electives	5
	49

Course descriptions begin on page 91

Industrial Technology

(606) 783-2013
210 Lloyd Cassity Building
Department of Industrial Education and Technology
College of Applied Sciences and Technology

Faculty—S. Gillock, R. Hayes, D. Karwatka, W. Morella, E. Nass, R. Newton (chair), M. Roberts, G. Russell, R. Stanley, P. Tyree

Bachelor of Science

Area of Concentration

The student must complete a minimum of 52 semester hours for the area of concentration to include a 21 semester hour option and a 15 semester hour emphasis.

General Education Requirements

The following specific courses must be included in the 42 hour general education component (see general education requirements):

	Sem. Hrs.
MATH 152—College Algebra	3
ECON 101—Introduction to American Economy	3
SPCH 370—Business and Professional Speech	3
DATA 201—Introduction to Computers	3
	12

Core Requirements

	Sem. Hrs.
GCT 103—Technical Drawing I	3
IET 317—Time and Motion Study	2
IET 319—Quality Control	3
IET 320—Supervisory Practices	3
IET 330—Industrial Design	2
IET 472—Basic Industries Practicum	2
IET—Seminar	1
	16

Options

Students must select one of the following options:

	Sem. Hrs.
Broadcast technology	21
Construction technology	21
Drafting and design technology	21
Electrical technology	21
Electronics technology	21
Graphic arts technology	21
Industrial supervision and management technology	21
Machine tool technology	21
Plastics technology	21
Power and fluids technology	21
Robotics engineering technology	21
Welding technology	21
Woods technology	21

Emphasis

Select one of the following:

	Sem. Hrs.
Approved electives in math and science	15
Approved electives in business and economics	15

Major

Requirements

The student must complete a minimum of 30 semester hours including a 16 semester hour technical option.

General Education Requirements

The following specific courses must be included in the 42 hour general education component (see general education requirements):

	Sem. Hrs.
HLTH 203—Safety and First Aid	3
PSY 154—Introduction to Psychology	3
	6

Core Courses

	Sem. Hrs.
GCT 103—Technical Drawing I	3
IET 317—Time and Motion	2
IET 319—Quality Control	3
IET 320—Supervisory Practices	3
IET 330—Industrial Design	2
IET 571—Seminar	1
	14

Options

Students must select one of the following options:

	Sem. Hrs.
Broadcasting technology	16
Construction technology	16
Drafting and design technology	16
Electrical technology	16
Electronics technology	16
Graphic arts technology	16
Industrial Supervision and Management technology	16
Machine tool technology	16
Plastics technology	16
Power and fluids technology	16
Robotics engineering technology	16
Welding technology	16
Woods technology	16

Course descriptions begin on page 91

Integrated Science

(606) 783-2914
206 Lappin Hall
Department of Physical Sciences
College of Arts and Sciences

Faculty—M. Esham, W. Falls, R. Fiel, C. Ramey

Minor (Non-Teaching)

	Sem. Hrs.
SCI 103—Introduction to Physical Sciences (or equivalent)	3
BIOL 105—Introduction to Biological Sciences (or equivalent)	3
BIOL 551—Plant Natural History (or equivalent)	3
BIOL 552—Animal Natural History (or equivalent)	3
Electives approved by the advisor	12
	24

Course descriptions begin on page 91

Interior Decoration

(606) 783-2966
100 Lloyd Cassity Building
Department of Home Economics
College of Applied Sciences and Technology

Faculty—R. Morehead

Associate of Applied Science (Two-Year Program)

The two-year associate degree program in interior decoration prepares students for pre-professional employment as assistants and technicians working in conjunction with experienced designers, or in retail sales.

General Education Requirements

	Sem. Hrs.
ENG 101—Composition I	3
ENG 102—Composition II	3
General education electives	9
	15

Program Requirements

HEC 101—Orientation to the Home Economics Profession	1
HEC 103—Interior Graphics I	3
HEC 104—Interior Graphics II	3
HEC 200—Family Perspectives	3
HEC 220—Introduction to Interior Design	3
HEC 250—Visual Merchandising	3
HEC 252—Problems in Interior Design	3
HEC 332—Field Experience in Home Economics or approved elective	4
HEC 343—Textiles for Interiors	3
HEC 351—Housing	3
HEC 370—Residential Interior Design Studio, I	3
HEC 381—History of Interiors I	3

HEC 382—History of Interiors II	3
MKT 350—Salesmanship	3
OADM 190—Office Administration	3
OADM 321—Business Communications	3
PDI 100—Personal Development Institute	1
Approved elective	3
	51

Students are required to complete 15 semester hours of general education courses. Courses include ENG 101, ENG 102 or 192, and 9 semester hours from at least three of the 10 designated categories.

Minor

A minor in interior decoration is offered to be combined with majors from many disciplines. It is particularly desirable for, but not limited to, majors in art, business, vocational home economics, and clothing and textiles.

Course Requirements

	Sem. Hrs.
HEC 103—Interior Graphics I	3
HEC 104—Interior Graphics II	3
HEC 220—Introduction to Interior Design	3
HEC 252—Problems in Interior Design	3
HEC 343—Textiles for Interiors	3
HEC 351—Housing	3
HEC 370—Residential Interior Design Studio I	3
HEC 382—History of Interiors II	3
	24

Course descriptions begin on page 91

Interior Design

(606) 783-2966
100 Lloyd Cassity Building
Department of Home Economics
College of Applied Sciences and Technology

Faculty—R. Morehead

Bachelor of Science

Major

Graduates of the interior design area will be prepared to work as contract, residential, or specialty designers in interior design studios, contract studios, retail or office furnishings stores, architectural firms, industry, institutions, or self-owned businesses.

Core Requirements

	Sem. Hrs.
HEC 101—Orientation to the Home Economics Profession	1
HEC 200—Family Perspective	3
HEC 201—Principles of Nutrition	3
HEC 363—Human Resource Management	3
HEC 471—Seminar	1

Program Requirements

HEC 103—Interior Graphics I	3
HEC 104—Interior Graphics II	3
HEC 220—Introduction to Interior Design	3
HEC 250—Visual Merchandising	3
HEC 252—Problems in Interior Design	3
HEC 343—Textiles for Interiors	3
HEC 351—Housing	3
HEC 370—Residential Interior Design, Studio I	3
HEC 381—History of Interiors I	3
HEC 382—History of Interiors II	3
HEC 475—Contract Interior Design, Studio II	3
	33

Supplemental Requirements

ART 101—Two Dimensional Foundation	3
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Course descriptions begin on page 91

Journalism

(606) 783-2694, (606) 783-2134 (chair)
101 Breckinridge Hall, 109 Breckinridge Hall (chair)
Department of Communications
College of Arts and Sciences

Faculty—R. Banks, W. Brown, L. Dales, R. Dandeneau

Restrictions Applying to All Programs in Communications

A student may credit toward a program of study in the Department of Communications a limited number of hours from any combination of the following courses, each of which is available in the academic areas of journalism, radio-TV, speech, and theatre:

Communications Cooperative Study 139, 239, 339, 439, 539.

Communications Internship 347, 447.

Special Problems 476.

In each communications program, no more than 9 hours in any combination of the courses listed above may be applied toward an area of concentration, a major, or an associate degree. No more than 6 such hours may be applied toward a minor.

Credit hours earned in these courses which exceed the limits above will not apply to program requirements, but may be applied to the minimum requirements for an A.B. or A.A.A. degree.

Bachelor of Arts

Major

Core Requirements

	Sem. Hrs.
JOUR 110—Introduction to Mass Communications	3
JOUR 201—News Writing and Reporting	3
	(continued on next page)

JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 505—Law and Ethics of Press	3
COMM 347 or 447—Internship OR COMM 139, 239, 339, 439, or 539—Cooperative Study, in an approved field of journalism for 1 to 3 hours, as indicated in each emphasis listing below:	

(NOTE: Journalism students without typing skills are expected to take a typing course before taking 300-level journalism courses.)

News-Editorial Emphasis

JOUR 301—Advanced Newswriting (3 hrs.); JOUR 304—Newspaper Production or JOUR 306—Newspaper Graphics and Production (3 hrs.); JOUR 465—Editorial Writing (3 hrs.) COMM Internship or Co-op (3 hrs.); and JOUR electives, 3 hrs.—total 30 hours.

Teaching Emphasis

JOUR 306—Newspaper Graphics and Production (3 hrs.); JOUR 382—Principles of Public Relations (3 hrs.); JOUR 383—Principles of Advertising (3 hrs.); JOUR 465—Editorial Writing (3 hrs.); JOUR 504—School Publications (3 hrs.); COMM Internship or Co-op (1 hr.)—total of 31 hours.

Advertising-Public Relations Emphasis

JOUR 382—Principles of Public Relations (3 hrs.); JOUR 383—Principles of Advertising (3 hrs.); JOUR 482—Public Relations Practices or JOUR 483—Advertising Design or JOUR 583—Advertising Copywriting (3 hrs.); COMM Internship or Co-op (3 hrs.); and 3 hours of electives to be chosen from the following: JOUR 306, 565, 584, or R-TV 240, or SPCH 567—total of 30 hours.

Photojournalism Emphasis

JOUR 306—Newspaper Graphics and Production (3 hrs.); JOUR 386—Photo Essay and Editing (3 hrs.); JOUR 387—Advanced Photojournalism (3 hrs.); COMM Internship or Co-op (1 hr.); and JOUR electives, 5 hrs.—total 30 hours.

Community Newspaper Emphasis

JOUR 301—Advanced Newswriting or JOUR 364—Feature Writing (3 hrs.); JOUR 306—Newspaper Graphics and Production (3 hrs.); JOUR 483—Advertising Design (3 hrs.); JOUR 506—Community Newspapering (3 hrs.); JOUR 465—Editorial Writing or JOUR 368—Sports Writing (3 hrs.); COMM Internship or Co-op (1 hr. each in three of these areas; reporting, photography, advertising and newspaper production, for total 3 hrs.); HIS 142—Recent American History, or MNGT 310—Small Business Organization, or GOVT 242—State and Local Government (3 hrs.), for a total of 36 hours.

Minor

Core Courses

	Sem. Hrs.
JOUR 110—Introduction to Mass Communications.....	3
JOUR 201—Newswriting and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3

(Typing skills required for 300-level and above journalism courses.)

News-Editorial Emphasis

JOUR 301—Advanced newswriting (3 hrs.); JOUR 465—Editorial Writing (3 hrs.); JOUR 505—Law and Ethics of the Press (3 hrs.); COMM Internship or Co-op (1 hr.), for a total 22 hours.

Teaching Emphasis

JOUR 465—Editorial Writing (3 hrs.); JOUR 504—School Publications (3 hrs.); COMM Internship or Co-op (1 hr.), JOUR electives (2 hrs.), for a total 21 hours.

Advertising-Public Relations Emphasis

JOUR 382—Principles of Public Relations (3 hrs.); JOUR 383—Principles of Advertising (3 hrs.); COMM Internship or Co-op (1 hr.); JOUR 482—Public Relations Practices, JOUR 483—Advertising Design, JOUR 565—Public Opinion and News Media, JOUR 583—Advertising Copywriting, or JOUR 584—Psychology of Advertising (3 hrs.), for a total of 22 hours.

Photojournalism Emphasis

JOUR 386—Photo Essay and Editing (3 hrs.); JOUR 387—Advanced Photojournalism (3 hrs.); COMM Internship or Co-op (1 hr.) and JOUR electives (3 hrs.), for a total 22 hours.

Community Newspaper Emphasis

JOUR 301—Advanced Newswriting (3 hrs.); JOUR 306—Newspaper Graphics and Production (3 hrs.); JOUR 483—Advertising Design (3 hrs.); JOUR 506—Community Newspapering (3 hrs.); COMM Internship or Co-op (1 hr. each in three of these areas: reporting, photography, advertising and newspaper production—3 hrs.), for total 27 hours.

Associate of Applied Arts

	Sem. Hrs.
JOUR 110—Introduction to Mass Communications.....	3
JOUR 201—Newswriting and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
(Typing skills are required for 300 and above level journalism courses:)	
JOUR 344—Broadcast News and Public Affairs	3
JOUR 383—Principles of Advertising	3
COMM 347 or 447—Internship	1
SPCH 370—Business and Professional Speech	3
Approved communications electives	11
ENG 101—Composition I.....	3
ENG 102—Composition II.....	3
OADM 111—Beginning typing (or show proficiency).....	3
FNA 160—Appreciation of Fine Arts	3
GEO 211—Economic Geography	3
Other general education requirement courses not listed here but appearing on catalog list for associate degree	3
Electives	14
	65

Course descriptions begin on page 91

Latin

(606) 783-2185
103 Combs Building
Department of English, Foreign Languages, and Philosophy
College of Arts and Sciences

Faculty—M. Netherton

There are no academic programs in Latin, but courses are available. Please refer to the course description section for course offerings.

Course descriptions begin on page 91

Machine Tool Technology

(606) 783-2013
210 Lloyd Cassity Building
Department of Industrial Education and Technology
College of Applied Sciences and Technology

Faculty—S. Gillock, R. Hayes

Associate of Applied Science (Two-Year Program)

General Education Requirements

The following specific courses must be included in the general education component (see general education requirements):

	Sem. Hrs.
ENG 101—Composition I.....	3
MATH 135—Mathematics for Technical Students.....	3
ECON 101—Introduction to the American Economy.....	3
ENG 192—Technical Composition.....	3
SPCH 370—Business and Professional Speech.....	3
	15

Core Requirements

	Sem. Hrs.
GCT 103—Technical Drawing I.....	3
MFT 106—Thermoplastic Processing.....	3
MFT 186—Manufacturing and Fabrication.....	3
CON 103—Materials Testing.....	3
IET 160—Power and Fluids.....	3
MFT 286—Machine Tool Processes.....	3
EET 140—Basic Electricity.....	3
IET 319—Quality Control.....	3
IET 320—Supervisory Practices.....	3
WEL 386—Welding.....	3
MFT 386—NC-CNC Manufacturing Technology.....	3
GCT 301—Tool Layout and Design.....	3
MFT 306—Mold Design and Construction.....	3
IET 330—Industrial Design.....	2
MFT 486—Patternmaking and Foundry.....	2
MFT 488—Flexible Manufacturing Engineering Technology.....	3
ROB 170—Introduction to Robotics.....	3
	49

Course descriptions begin on page 91

Management

(606) 783-2164, 783-2174
313 Combs Building
School of Business and Economics
College of Professional Studies

Faculty—R. Albert, C. Caudill, R. Meadows, J. Peters

Bachelor of Business Administration Management Option

General Education Requirements

The following specific courses must be included in the 42 hour general education component (see general education requirements):

	Sem. Hrs.
SPCH 370—Business and Professional Speech.....	3
MATH 160—Mathematics for Business and Economics.....	3
MATH 354—Business Statistics.....	3
ECON 201—Principles of Economics I.....	3
ECON 202—Principles of Economics II.....	3

Core Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I.....	3
ACCT 282—Principles of Accounting II.....	3
DATA 201—Introduction to Computers.....	3
ECON 350—Microeconomic Theory.....	3
FIN 360—Business Finance.....	3
MKT 304—Marketing.....	3
MNGT 261—The Legal Environment of Business Organizations.....	3
MNGT 301—Principles of Management.....	3
MNGT 306—Production Management.....	3
MNGT 472—Business Policies and Problems.....	3
OADM 321—Business Communications.....	3
	33

Program Requirements

	Sem. Hrs.
BBA Core.....	33
ACCT 300—Managerial Accounting	
OR	
ACCT 390—Cost Accounting I.....	3
MNGT 311—Personnel Management.....	3
MNGT 411—Labor Relations.....	3
Approved electives.....	12
	54

Bachelor of Science

Minor in Business Administration

Students selecting programs with business administration minor should first consult with advisors in their major areas.

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I.....	3
ACCT 282—Principles of Accounting II.....	3
DATA 201—Introduction to Computers.....	3
FIN 360—Business Finance.....	3
MKT 304—Marketing.....	3
MNGT 261—The Legal Environment of Business Organizations.....	3
MNGT 301—Principles of Management.....	3
MNGT 306—Production Management.....	3
	24

In addition, students completing this minor are required to include ECON 201 and 202 as part of their general education courses.

Course descriptions begin on page 91

Marketing

(606) 783-2164, 783-2174
313 Combs Building
School of Business and Economics
College of Professional Studies

Faculty—R. Carlson, S. Martin, T. McGlone, P. Osborne, B. Pierce

MKT 305—Purchasing	3
MKT 350—Salesmanship	3
MKT 351—Sales Management	3
MKT 450—Consumer Behavior	3
MKT 451—Retail Merchandising	3
MKT 555—Advertising	3
	24

Course descriptions begin on page 91

Bachelor of Business Administration

Marketing Option

General Education Requirements

The following specific courses must be included in the 42 hour general education component (see general education requirements):

	Sem. Hrs.
SPCH 370—Business and Professional Speech	3
MATH 160—Mathematics for Business and Economics	3
MATH 354—Business Statistics	3
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3

Core Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
ECON 350—Microeconomic Theory	3
FIN 360—Business Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
MNGT 306—Production Management	3
MNGT 472—Business Policies and Problems	3
OADM 321—Business Communications	3
	33

Program Requirements

	Sem. Hrs.
BBA Core	33
MKT 350—Salesmanship	3
MKT 450—Consumer Behavior	3
MKT 453—Marketing Planning and Strategies	3
MKT 552—Marketing Research and Analysis	3
MKT 555—Advertising	3
Approved electives	6
	54

Bachelor of Science

Minor

Students selecting programs with marketing minor should first consult with advisors in their major areas.

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
DATA 201—Introduction to Computers	3
MKT 304—Marketing	3
MKT 453—Marketing Planning and Strategies	3
MKT 552—Marketing Research and Analysis	3

Nine hours of electives to be chosen from the following:

Mathematics

(606) 783-2939
112 Lappin Hall
Department of Mathematical Sciences
College of Arts and Sciences

Faculty—B. Flora, J. Fryman, R. Hammons, L. Jaisingh, G. Johnston (chair), R. Leigh, R. Lindahl, N. Mahaney, J. Mann, D. Moore, G. Nolen, T. Pack, R. Ross, J. Saxon

Bachelor of Science

The Department of Mathematical Sciences is committed to the education of students who intend (1) to teach mathematics at any level, (2) to apply mathematics in industry or government, or (3) to use mathematical techniques and concepts in their chosen fields of endeavor.

Major

	Sem. Hrs.
MATH 175—Analytic Geometry and Calculus I	4
MATH 275—Analytic Geometry and Calculus II	4
MATH 471—Seminar	1
Electives in mathematics above 170 except MATH 231, 232, 252, and 260	7
Electives in mathematics above 300 as approved by the chair of the Department of Mathematical Sciences	14
	30
DATA 202—Computer Programming BASIC	3

Major (Teaching)

	Sem. Hrs.
MATH 175—Analytic Geometry and Calculus I	4
MATH 275—Analytic Geometry and Calculus II	4
MATH 301—Elementary Linear Algebra	3
MATH 304—Mathematical Logic and Set Theory	3
MATH 350—Introduction to Higher Algebra	3
MATH 353—Statistics	3
MATH 370—College Geometry I	3
MATH 371—College Geometry II	3
MATH 373—Principles and Techniques of Mathematics	3
MATH 471—Seminar	1
	30
DATA 202—Computer Programming BASIC	3

Minor

	Sem. Hrs.
MATH 175—Analytic Geometry and Calculus I	4
MATH 275—Analytic Geometry and Calculus II	4
Electives in math above 170 except MATH 231, 232, 252, and 260	7
Electives in math above 300 as approved by the chair of the Department of Mathematical Sciences	6
	21
DATA 202—Computer Programming BASIC	3

Minor (Teaching)

	Sem. Hrs.
MATH 175—Analytic Geometry and Calculus I	4
MATH 275—Analytic Geometry and Calculus II	4
MATH 301—Elementary Linear Algebra	3
MATH 353—Statistics	3
MATH 370—College Geometry I	3
MATH 373—Principles and Techniques of Mathematics	3
MATH 471—Seminar	1
	21
DATA 202—Computer Programming BASIC	3

Academic Specialty (Middle School)

	Sem. Hrs.
MATH 231—Mathematics for the Elementary Teacher I	3
MATH 232—Mathematics for the Elementary Teacher II	3
MATH 152—College Algebra	3
MATH 141—Plane Trigonometry	3
OR	
MATH 174—Pre-Calculus Mathematics II	3
MATH 304—Mathematical Logic and Set Theory	3
MATH 332—Introduction to Finite Mathematics	3
MATH 370—College Geometry I	3
DATA 202—Computer Programming BASIC	3
	24

Minor in Statistics

A student should consult the chair of the Department of Mathematical Sciences for approval of one of the following:

OPTION I

	Sem. Hrs.
MATH 123—Introduction to Statistics	3
MATH 132—General Mathematics II	3
MATH 260—FORTRAN Programming	3
MATH 301—Elementary Linear Algebra	3
MATH 353—Statistics	3
MATH 553—Statistical Methods	3
MATH 555—Nonparametric Statistics	3
	21

OPTION II

	Sem. Hrs.
MATH 301—Elementary Linear Algebra	3
MATH 312—Numerical Analysis	3
MATH 353—Statistics	3
MATH 519—Probability	3
MATH 520—Mathematical Statistics	3
MATH 553—Statistical Methods	3
MATH 555—Nonparametric Statistics	3
	21

Course descriptions begin on page 91

Mathematics and Computer Programming

(606) 783-2939
112 Lappin Hall
Department of Mathematical Sciences
College of Arts and Sciences

Faculty—B. Flora, J. Fryman, R. Hammons, L. Jaisingh, G. Johnston (chair), R. Leigh, R. Lindahl, N. Mahaney, J. Mann, D. Moore, G. Nolen, T. Pack, R. Ross, J. Saxon

Bachelor of Science

The Department of Mathematical Sciences is committed to the education of students who intend (1) to teach mathematics at any level, (2) to apply mathematics in industry or government, or (3) to use mathematical techniques and concepts in their chosen fields.

Area of Study

	Sem. Hrs.
MATH 175—Analytic Geometry and Calculus I	4
MATH 252—Boolean Algebra	3
MATH 275—Analytic Geometry and Calculus II	4
MATH 276—Analytic Geometry and Calculus III	4
MATH 301—Elementary Linear Algebra	3
MATH 304—Math Logic and Set Theory	3
MATH 312—Numerical Analysis	3
MATH 353—Statistics	3
MATH 363—Differential Equations	3
DATA 201—Introduction to Computers	3
DATA 202—Computer Programming BASIC	3
DATA 210—Computer Programming ASSEMBLER I	3
DATA 216—Programming in PL/1	3
DATA 260—FORTRAN Programming I	3
DATA 316—Advanced PL/1 Programming	3
DATA 320—Computerized Business Systems	3
DATA 526—Data Base Management Systems	3
Electives in physics, electronics, or advanced data processing courses as approved by the chair, Department of Mathematical Sciences	9
	63

Course descriptions begin on page 91

Medical Technology

(606) 783-2962 (T. Pass)
415 Lappin Hall
Department of Biological and Environmental Sciences
College of Arts and Sciences

Faculty—D. Brumagen, F. Busroe, G. DeMoss (chair), R. Eversole, J. Howell, D. Magrane, D. McNeely, L. Meade, T. Pass, M. Pryor, D. Saxon, H. Setser, C. Van Bell

Bachelor of Science

Medical technology is one of the newest and fastest-growing professions associated with modern advances in medical science. The medical technologist performs analytical tests on body fluids, cells, and products. The resulting information is used by the physician in diagnosing disease, selecting and monitoring treatment, and in counseling for prevention of disease.

Personal attributes necessary for success in this profession include aptitude for physical and biological sciences, dependability, a strong sense of responsibility, and capacity to work well under stress.

Approximately two-thirds of all medical technologists are employed in hospital laboratories. Most others are employed in physicians' offices; private laboratories; clinics; the armed

forces; city, state, and federal agencies; industrial medical laboratories; pharmaceutical houses; and public and private research programs directed toward combating specific diseases.

Admission to an American Medical Association-approved clinical program of medical technology (see below) requires at least 92 semester hours of academic credit at Morehead State University, including appropriate course work in biology, chemistry, and mathematics. This curriculum culminates in a baccalaureate degree after the clinical year at an accredited school of medical technology has been completed. The professional hospital-based clinical program is 12 months long; it generally follows three academic years at MSU.

MSU is affiliated with the following accredited hospital schools of medical technology:

1. St. Elizabeth Medical Center
Covington, Kentucky
2. Providence Hospital
Cincinnati, Ohio
3. United Technical Institute
Nashville, Tennessee
4. Methodist Hospital of Kentucky
Pikeville, Kentucky
5. Lourdes Hospital
Paducah, Kentucky
6. University of Louisville
Louisville, Kentucky

Students, with the assistance of their medical technology coordinator, usually begin to make applications to medical technology schools at the beginning of their junior year. Acceptance by an accredited school of medical technology for clinical study is competitive and is generally based on the applicant's academic record (minimum of 2.5 grade-point average), personal interviews, and letters of recommendation. The final decision for admittance into the program is made by the appropriate school of medical technology. MSU makes every effort to secure each student a position at one of the hospital schools of medical technology.

Most affiliated hospitals charge a nominal fee during the clinical year in order to help defray expenses incurred in providing the students laboratory experience. The hospitals provide the medical technology coordinator with an estimate of expenses, in addition to tuition or fees, the student will likely incur during the clinical year of training. Grants and/or loans (B.E.O.G. and others) are available for eligible students through the university.

Affiliated hospital schools do not assume any obligation to accept a maximum or minimum number of students each year from MSU. Selection is based on open competition.

Upon completion of the four-year program, students take a certifying examination in medical technology. MSU confers upon successful candidates the Bachelor of Science degree with an area in medical technology.

The medical technology curriculum is flexibly designed. A student deciding, for whatever reason, not to complete the "three plus one" program may still pursue and obtain a bachelor of science degree in biology through continued enrollment and acceptable performance at MSU.

Area in Medical Technology

Sem. Hrs.

BIOL 100—Orientation to Biological and Environmental Sciences Programs	1
BIOL 171—Principles of Biology	4
BIOL 304—Genetics	3
BIOL 317—Principles of Microbiology	4
BIOL 331—Human Anatomy	3
BIOL 332—Human Physiology	3
BIOL 333—Human Physiology Lab	1
BIOL 380—Cell Biology	3
BIOL 518—Pathogenic Microbiology	3
BIOL 540—General Parasitology	3
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Lab	1
CHEM 112—Principles of Chemistry I	3
CHEM 112A—Principles of Chemistry I Lab	1
CHEM 223—Quantitative Analysis	4
CHEM 326—Organic Chemistry I	3
CHEM 326A—Organic Chemistry I Lab	1
CHEM 460—Instrumental Analysis	4
OR	
CHEM 301—Survey of Biochemistry	3
AND	
CHEM 301A—Survey of Biochemistry Lab	3
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3
ENG 102 or 192—Composition II	3
ENG—Literature 202, 211, or 212	3
GEN EDUC—social and behavioral sciences	3
GEN EDUC—communications and humanities elective	3
GEN EDUC—social and behavioral sciences elective	3
GEN EDUC—General elective	3
HLTH 150—Personal Health and PHED activity course	
OR	
HLTH 203—Safety and First Aid	3
MATH 123—Introduction to Statistics or equivalent	3
MATH 152—College Algebra or equivalent	3
PSY 154—Introduction to Psychology	3
Science elective (see recommended electives below)	3
SPCH 110—Basic Speech	3

Recommended electives related to program:

BIOL 336—Pathophysiology	4
BIOL 520—Histology	3
CHEM 327—Organic Chemistry II	3
CHEM 327A—Organic Chemistry II Lab	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1

SENIOR YEAR (Clinical)

All students attending an accredited school of medical technology during their clinical program of professional study must be enrolled in BIOL 413, 414, 415, and 416, Medical Technology Clinical Practicum, 4 to 14 hours, at Morehead State University during the fall, spring, and summer sessions.

The student will receive a minimum of 36 semester hours of credit upon successfully completing one year of clinical training at an accredited school of medical technology. Credit awarded will be applicable toward a Bachelor of Science degree with an area of concentration in medical technology.

All the following courses, or their equivalents, must be satisfactorily completed (at least a 2.0 or C average) during the hospital-based clinical year in order to receive credit for Biology 413, 414, 415, and 416 and to obtain a recommendation for one of the certification examinations.

Immunohematology. Theory and performance of tests related to donor selection, storage of units, blood grouping, Rh titers, compatibility testing, antibody detection and identification, and blood component therapy. 58 hours lecture and 106 hours of laboratory.

Medical Microbiology. Cultural techniques and characteristics, metabolic demands and microscopic study of bacteria from patient cultures and unknowns; identification by culture, chemical, and serological techniques;

drug susceptibility testing. Lecture topics include frequently and uncommonly encountered bacteria and viruses. 80 hours lecture and 180 hours laboratory.

Medical Mycology. Cultural characteristics and microscopic study of differentiating morphology are stressed in a workshop atmosphere; participants work on unknowns. Preliminary procedures and identification of tubercular organisms; 30 hours lecture and 33 hours laboratory.

Serology and Immunology. Theory and principles of the various serological tests; methods employed include precipitation, flocculation, hemolysis, and fluorescence. 40 hours lecture and 32 hours laboratory.

Routine Analysis. Chemical and microscopic laboratory methods used to study gastric, cerebrospinal, urine, pleural, and abdominal body fluids; related physiology and disease states. 40 hours lecture and 150 hours laboratory.

Clinical Chemistry. Quantitative chemical analyses performed for various constituents of blood: enzymes, electrolytes, carbohydrates, hormones, lipids, and nitrogen compounds. Precision manual techniques and a wide variety of instrumental methods are utilized; quality control is emphasized; a limited amount of toxicology is included. Lectures on principles of laboratory tests and physiological reactions in addition to correlation of laboratory findings with disease states. 114 lecture and 180 hours laboratory.

Special Topics. A three-part course in (1) orientation, including ethics, professional relationships, the institution and policies, the school program, venipuncture, patient approach, specimen identification, and basic calculation; (2) solutions, essentially a condensed elementary review of quantitative analysis, including gravimetric and volumetric procedures and associated calculations; and (3) management, a four-day workshop designed by the American Management Association to introduce basic management skills. 75 hours lecture, 33 hours laboratory, and 16 hours seminar.

Medical Parasitology. A workshop study of the geographical distribution, laboratory identification, modes of transmission, and effects of parasitic infestation on man. 25 hours lecture and 45 hours laboratory.

Hematology. Physical, chemical, and microscopic procedures are utilized to evaluate the qualitative and quantitative composition of blood and bone marrow. The function of factors governing the clotting mechanism. Advanced hematology emphasizes correlation of laboratory test results and clinical findings. Collection of specimens and patient contacts are made from this area. 99 hours lecture and 180 hours laboratory.

Seminar. Various activities include: patient case studies to correlate laboratory results with disease states; literature search and preparation of review questions with team competition in answering; assigned classroom presentations. Sixteen hours discussion.

Course descriptions begin on page 91

Military Science

(606) 783-2050
Button Auditorium
Department of Military Science
College of Professional Studies

Faculty—S. Arnold, A. Baldwin (chair), H. Exum, B. Jeffrey,
H. Ortizcabrera, L. Purinton, F. Soward, L. Szilagyi

The program affords both men and women the opportunity to be commissioned as officers in the United States Army Reserve, National Guard, or the active Army upon graduation.

Minor

6 to 8 credit hours from the following MS courses denoted by an asterisk (). All other MS courses are required.....6-8
Sem. Hrs.

*MS 101—Introduction to Military Science	2
*MS 102—U.S. Army: Its Evolution and Development	2
*MS 201—Leadership Principles and Techniques	2
*MS 202—Instructional Techniques and Survey of Army Career Fields	2
MS 301—Advanced Military Science I	3
MS 302—Advanced Military Science II	3
MS 401—Advanced Military Science I	3
MS 402—Advanced Military Science II	3
Electives of particular interest and value to military science as approved by military science advisor (300 level courses or above)	6
Minimum for minor	24

*Placement credit for these courses may be given to veterans, graduates of college level ROTC summer programs, and participants in high school level ROTC programs.

The following criteria must be met by all students in order to minor in military science:

1. Acceptance into the advanced course.
2. A cumulative grade-point average of 2.0 or higher.
3. A grade-point average of 2.0 or better in the major field or area of concentration.
4. A grade-point average of 3.0 or better in military science.

The above standards may be waived, providing the cadet has a cumulative grade-point average of 2.25 or better, with the approval of a board consisting of the professor of military science, the vice president for academic affairs, and an MS IV cadet who has the rank of cadet major or above.

Course descriptions begin on page 91

Mining, Reclamation, and Energy Studies

(606) 783-2649
325 Reed Hall
Department of Agriculture and Natural Resources
College of Applied Sciences and Technology

Faculty—C. Patrick, (coordinator)

Bachelor of Science

Area of Concentration

The student must complete a minimum of 45 semester hours in the area of concentration in mining, reclamation, and energy studies, of which 21 semester hours are in the following core course requirements and 24 semester hours are within one of the following four options—mining technology, reclamation technology, mining administration, or safety and health. General course electives may also be taken in mining, reclamation, and related areas by students wishing greater depth in the mining, reclamation, and energy fields.

Core Requirements

	Sem. Hrs.
Required courses in mining, reclamation, and energy studies.....	21
MIN 101—Introduction to Mining and Reclamation.....	3
MIN 302—Coal Analysis and Preparation.....	3
MIN 303—Mine Laws.....	3
MIN 305—Surface Mining Systems.....	3
MIN 401—Mining Economics.....	3
MIN 404—Mine Management.....	3
RCL 301—Reclamation Laws and Regulations.....	3

Mining Technology Option

	Sem. Hrs.
Required courses.....	27
MIN 103—Mine Drafting.....	3
MIN 104—Underground Mine Safety.....	3
MIN 200—Mine Surveying.....	3
MIN 201—Mine Equipment.....	3
MIN 202—Mine Ventilation.....	3
MIN 301—Mine Electrical Systems.....	3
MIN 406—Underground Mine Technology.....	3
GEOS 200—Coal Mine Geology.....	3
AGR 207—Land Conservation and Forest Management.....	3

Reclamation Technology Option

	Sem. Hrs.
Required courses.....	25
RCL 302—Reclamation Management and Systems Planning I.....	4
CON 102—Surveying I.....	3
AGR 180—Elementary Field Crops.....	3
AGR 211—Soils.....	3
AGR 311—Soil Conservation.....	3
AGR 312—Soil Fertility and Fertilizers.....	3
GEOS 350—Geomorphology.....	3
MIN 200—Mine Surveying.....	3

Mining Administration Option

	Sem. Hrs.
Required courses.....	27
ACCT 281—Principles of Accounting I.....	3
ACCT 282—Principles of Accounting II.....	3
DATA 201—Introduction to Computers.....	3
FIN 252—Mathematics of Finance.....	3
MNGT 301—Principles of Management.....	3
FIN 360—Business Finance.....	3
MKT 304—Marketing.....	3
ECON 201—Principles of Economics I.....	3
ECON 202—Principles of Economics II.....	3

Safety and Health Option

	Sem. Hrs.
Required courses.....	24
MIN 104—Underground Mine Safety.....	3
HLTH 203—Safety and First Aid.....	3
HLTH 419—Emergency Medical Techniques.....	6
IET 422—Industrial Safety Standards and Enforcement.....	3
General electives (approved by advisor).....	9

Minor

The student must complete a minimum of the 21 semester hours of mining and reclamation courses in the following required list, plus a major selected in another field.

General course electives may also be taken in mining, reclamation and related areas by students wishing greater depth in mining, reclamation, and energy studies.

Required Courses

	Sem. Hrs.
	21
MIN 101—Introduction to Mining and Reclamation.....	3
MIN 303—Mine Laws.....	3
MIN 305—Surface Mining Systems.....	3
MIN 401—Mining Economics.....	3
MIN 404—Mine Management.....	3
REL 301—Reclamation Laws and Regulations.....	3
Approved elective.....	3

Course descriptions begin on page 91

Mining Technology

(606) 783-2649
325 Reed Hall
Department of Agriculture and Natural Resources
College of Applied Sciences and Technology

Faculty—C. Patrick

Associate of Applied Science (Two-Year Program)

The student must complete a minimum of the 52 semester hours of required courses in the following list. Additional course electives may also be taken in agriculture, mining, and related areas by students wishing greater depth in mining technology.

Core Requirements

	Sem. Hrs.
Required courses.....	52
MIN 101—Introduction to Mining and Reclamation.....	3
MIN 103—Mine Drafting.....	3
MIN 104—Underground Mine Safety.....	3
MIN 200—Mine Surveying.....	3
MIN 201—Mine Equipment.....	3
MIN 202—Mine Ventilation.....	3
MIN 301—Mine Electrical Systems.....	3
MIN 302—Coal Analysis and Preparation.....	3
MIN 303—Mine Laws.....	3
MIN 305—Surface Mining Systems.....	3
AGR 207—Land Conservation and Forest Management.....	3
RCL 301—Reclamation Laws and Regulations.....	3
Approved electives.....	16

Course descriptions begin on page 91

Music

(606) 783-2473
106 Baird Music Hall
Department of Music
College of Arts and Sciences

Faculty—D. Anderson, A. Beane, J. Beane, W. Bigham, H. Blair, S. Blair, J. Bragg, J. Flippin, E. Fulbright, C. Gallaher (chair), J. Keenan, L. Keenan, M. Kuhn, E. Louder, E. Malterer, R. Miles, F. Mueller, E. Norden, F. Oddis, R. Pritchard, R. Ross, J. Stetler, L. Stetler, V. Venetozzi

The Department of Music offers a Bachelor of Music Education degree for those preparing to teach music; a Bachelor of Music degree for those planning careers as performers, theorists, or composers; and a major and minor within the Bachelor of Arts curriculum. Musical training and performance opportunities are also provided for students who are not planning musical careers.

General Requirements

Placement examinations and/or auditions are given in music theory, applied music (principal instrument or voice), and piano to all new music students during registration week of the fall and spring semesters. The results are used for advisement as to course and program enrollment.

Music students are required to register for student recital each semester. Regular attendance at student recital and other music programs presented on campus is expected of music students. Attendance records are kept by the chair of the Department of Music.

Piano Proficiency Requirements

All candidates for the Bachelor of Music Education, Bachelor of Music, and Bachelor of Arts degree with principal applied areas other than keyboard instruments are required to complete the four-semester sequence of class piano. Students with some previous keyboard background are to take the Piano Placement Examination which is given during registration week.

Students pursuing the Bachelor of Music Education degree with sufficient previous keyboard training may be exempted from the class piano sequence by passing the Piano Proficiency Examination. Students in this degree program who place in an advanced level of class piano may substitute music electives to fulfill music credit requirements.

Students pursuing the Bachelor of Music degree or the Bachelor of Arts degree and successfully completing the Piano Proficiency Examination prior to the completion of Class Piano IV must fulfill the remaining required hours of piano/keyboard specified in the catalog.

Curriculum Change

A student wishing to change from one music curriculum to another, or to make a change of principal applied area, must receive departmental approval to do so. A committee of faculty representing the appropriate specialties will be appointed to make recommendations to the department

chair as to the suitability of the change and the applicability of credits already earned toward the new curriculum.

Applied Music

Music Fees

Each half-hour private lesson per week, per semester	\$30.00
Junior recital (two hours credit)	\$30.00
Senior recital (two hours credit)	\$30.00
Senior recital (three hours credit)	\$60.00
Graduate recital	\$60.00
Composition Recital	\$60.00

NOTE: Under certain conditions, beginning students in applied music may be assigned to an undergraduate assistant for instruction. In this event, the lesson fee is one-half that charged for lessons with members of the music faculty.

Private Applied Music

Each music student is required to designate a principal area of private music study and to enroll for credit in this area each semester except the professional semester. Credit may also be earned in secondary areas. A change in the designated principal area may be made with the approval of the department chair.

With departmental permission, private instruction may be taken by students not following a music curriculum, in which case the course standards may be different from those expected of music students. Beginning instruction will be handled, whenever possible, as class applied study rather than private study.

Credit allowed for private applied music is variable, depending on the number of lessons per week and the program in which the student is enrolled. In a given area of private study, a student is expected to practice at least one hour per day for each hour of credit being earned.

Recitals

Recitals may be presented for credit by students who have been given approval to do so by the music faculty. Approval should be requested prior to the final private applied music examination preceding the semester in which the recital will be presented. Recital credit may be substituted for or earned in addition to private applied music credit.

Ensembles

Each music student is required to participate in a major ensemble representing his or her primary performing medium each semester of residence except the student teaching semester. Ensemble assignments are determined by the department with consideration given to both student and departmental needs.

Marching band is required each fall semester for instrumental music education degree students whose principal area of private applied is a wind or percussion instrument. All instrumental majors are required to take at least two semesters of vocal ensemble.

Ensembles may be taken with or without credit. A maximum of eight hours of credit in ensembles may be applied toward fulfilling the requirements of music curricula. (Refer to the curricula requirements listed previously.)

Bachelor of Music Education

This program is designed for students who are planning for careers as music teachers in the public schools. It includes the requirements for a twelve-grade music certificate in either vocal or instrumental music. An option for combined vocal and instrumental certification is also available.

	Sem. Hrs.
1. APPLIED MUSIC	31-33
Principal applied area	14
Ensembles, at least two vocal	7-9
*Class Piano	4
Class voice and instruments	6
2. *MUSIC THEORY	16
Music Theory I-IV	10
Music Reading I-III	6
3. MUSIC HISTORY AND LITERATURE	10
Literature of Music I-II	4
History of Music I-II	6
4. CONDUCTING	4
Basic Conducting	2
Choral Conducting	2
OR	
Instrumental Conducting	2
5. MUSIC EDUCATION	6
Introduction to Music Education	1
Elementary Materials and Methods	3
Vocal or Instrumental Materials and Methods	2
	67-69

*Exemption or advanced placement possible.

Bachelor of Music

This program is designed for students who are planning for professional careers in music either as performers or as private teachers. It does not meet the requirements for certification to teach in the public schools.

	Sem. Hrs.
1. MUSIC THEORY	18
Music Theory I-IV	10
Music Reading I-III	6
Form Analysis	2
2. MUSIC HISTORY AND LITERATURE	10
Literature of Music I-II	4
History of Music I-II	6
3. ENSEMBLES	8
4. CONDUCTING	4
Basic Conducting	2
Instrumental or Choral Conducting	2

NOTE: Jazz and studio music students should take basic conducting. To complete their conducting requirement, they will take Rehearsal Techniques for Jazz Ensembles (MUS 473).

In addition to the above courses, each Bachelor of Music degree student must complete the requirements for one of the following specializations:

1. VOICE	
Private Voice	16
Class Voice	1
Junior Recital	2
Senior Recital	3
Class and/or Private Keyboard	6
Languages (a minimum of six semester hours each in French and German)	12
2. PIANO	
Private Piano	19
Private Organ and/or Harpsichord	7
Junior Recital	2
Senior Recital	3
Class Voice	1
Piano Literature	3
Piano Pedagogy	2
Electives	3

3. ORGAN OR HARPSICHORD	
Private Organ or Harpsichord	19
Class or Private Piano	7
Junior Recital	2
Senior Recital	3
Class Voice	1
Piano Pedagogy	2
Piano Literature	3
Electives	3
4. STRINGS	
Private Strings	19
Class Piano and/or Private Keyboard	7
Junior Recital	2
Senior Recital	3
Electives	8
Class Voice	1
5. WIND AND PERCUSSION INSTRUMENTS	
Private Lessons in Major Instrument	19
Junior Recital	2
Senior Recital	3
Class Piano and/or Private Keyboard	7
Class Voice	1
Arranging	4
Music electives	4
6. THEORY/COMPOSITION	
Composition	12
Arranging	4
Counterpoint	2
Recital of Original Compositions	3
Class and/or Private Keyboard	6
Electives	6
Private Lessons in Major Instrument or Voice	7
7. JAZZ AND STUDIO MUSIC	
Private Applied Music	12
Junior Recital	2
Senior Recital	3
Jazz Keyboard	2
Class Piano and/or Jazz Keyboard	4
Jazz History and Literature	3
Arranging for Jazz Ensembles	4
Studio Improvisation	7
Music electives	3

Bachelor of Arts

Major

This program provides for the study of music within a liberal arts curriculum. Emphasis is upon the study and performance of musical literature. It is suitable for preparing students for careers in music other than performance and teaching music in the public schools.

	Sem. Hrs.
Applied Music	22
Private Lessons	14
Ensembles	4
Class or Private Piano	4
Music Theory	16
Music Theory I-IV	10
Music Reading I-III	6
Music History and Literature	10
Literature of Music I and II	4
History of Music I and II	6
	48

Minor

	Sem. Hrs.
Applied Music	14
Private Lessons	8
Ensembles	4
Class or Private Piano	2

Music Theory	9
Music Theory I and II	6
Music Reading I and II	3
Music Literature I and II	4
	27

Course descriptions begin on page 91

Nursing

(606) 783-2632, 234 Reed Hall
 (606) 783-2636, 225 Reed Hall
 Department of Nursing and Allied Health Sciences
 College of Applied Sciences and Technology

Faculty—A. Blair, J. Brumagen, H. Caldwell, J. Gross, P. Herald, F. Kilburn, S. Luchtfeld, B. Moore, J. O'Connell (coordinator), P. Ramey, M. Selby, B. Tapp, B. Porter (chair)

Bachelor of Science in Nursing (Four-Year Program)

The Baccalaureate Nursing Program (BSN) offers a four-year program of study which combines general education courses with professional nursing theory and clinical education. The program prepares the graduates for the role of the professional nurse and to provide a foundation for graduate study. Graduates of the program are eligible to take the National Council Licensure Examination for registered nurses. The BSN program also has a Registered Nurse (RN) track where graduates of associate degree and diploma nursing programs may pursue a BSN degree.

Admission Requirements and Procedures

The BSN program has selective admission procedure.

Application Procedure

1. Be admitted to Morehead State University through the university's Office of Admissions.
2. Declare nursing as an area of concentration.
 - A. Meet with assigned nursing faculty advisor;
 - B. Enroll in required pre-nursing courses as outlines in the BSN curriculum sequence.
3. Submit required materials listed below to the Department of Nursing and Allied Health Sciences by March 1 of the second semester of the pre-nursing curriculum:
 - A. Completed BSN application;
 - B. Official copy of high school transcript(s);
 - C. GED validation if applicable;
 - D. Official copy of transcripts from all universities/colleges attended;
 - E. University undergraduate catalog(s) if transfer credit is sought;
 - F. Course syllabi for all nursing courses completed if transfer credit is sought;
 - G. Validation of grades of required pre-nursing courses;

- H. Verification of health and physical capabilities.
4. Student selection process occurs during the spring semester of the first year of the generic baccalaureate nursing curriculum sequence.
 5. Students are officially admitted to the nursing program in the fall semester of the sophomore year of the curriculum sequence of the generic Baccalaureate Nursing Program.
 6. In order to be considered for official admission to the generic Baccalaureate Nursing Program, all materials must be submitted to the address below before March 1 of the second semester of the pre-nursing program:

Baccalaureate Nursing Program
 Morehead State University
 UPO Box 715
 Morehead, Kentucky 40351

Admission Criteria

The Baccalaureate Nursing Program has a limited enrollment. Applicants to the BSN program are selected based upon the following admission criteria:

1. Completion of the 34 credit hours of the required first year pre-nursing courses as listed on the curriculum sequence for generic BSN students;
2. Minimum grade of a "C" in each of the required courses in the first year of the curriculum sequence;
3. A grade-point average of 2.5 or above based on the required 34 credits in the first year of the curriculum sequence.

Applicants who are currently enrolled but have not yet completed the required 18 semester hours of the second semester are eligible for a conditional acceptance based on midterm grades. Final acceptance will be dependent on maintaining course grades and grade-point average as outlined in criteria 2 and 3.

4. Meet the following health and physical capabilities requirements:
 - A. Physical capabilities:
 - (1) Vision capabilities:
 - (a) Normal or corrected refraction within the ranges of 20/20 to 20/190;
 - (2) Auditory capabilities:

Possess normal or corrected hearing ability within 0 to 45 decibels range.
 - (3) Tactile capabilities:

Possess in at least one hand the ability to perceive temperature change and pulsations and to differentiate between various textures and structures.
 - (4) Language capabilities:

Possess the ability to communicate verbally.
 - (5) Motor capabilities:
 - (a) Grasp securely with at least one hand;
 - (b) Stand for long periods of time;
 - (c) Walk unassisted.
 - B. Freedom from transmittable disease as documented by:
 - (1) Negative PPD and/or normal chest x-ray within immediate past 12 months;
 - (2) Negative VDRL within immediate past 12 months;

- (3) Rubella antibody test (HI or HAI) either greater than 1:8 or documentation of rubella vaccination.
- C. Immunization as recommended by the Advisory Committee on Immunization Practices of the U.S. Public Health Services and the Committee on Infectious Diseases of the American Academy of Pediatrics.

BSN-RN Track Admission Requirements and Procedures

Application Procedure

1. Be admitted to Morehead State University through the Office of Admissions.
2. Declare nursing as the area of concentration:
 - A. Meet with assigned nursing faculty advisor;
 - B. Successfully complete the 45 credit hours of general education requirements or their equivalents.
3. Submit required materials listed below to the Department of Nursing and Allied Health Sciences by March 1 preceding the fall semester of the junior year in which applicant desires to officially be admitted to the nursing program:
 - A. Completed application form for BSN program;
 - B. Official copy of high school transcript(s);
 - C. GED validation, if applicable;
 - D. Official copy of transcripts from all universities/colleges attended;
 - E. University undergraduate catalog(s) if transfer credit is sought;
 - F. Course syllabi for all nursing courses completed if transfer credit is sought;
 - G. Validation of grades of required pre-nursing courses;
 - H. Validation of current Kentucky nursing licensure;
 - I. Verification of health and physical capability.
4. RN students are officially admitted to the BSN program in the fall semester of the junior year of the curriculum sequence for the RN track component.
5. In order to be considered for official admission to the RN track component of the Baccalaureate Nursing Program, all materials must be submitted to the address below before March 1 preceding the fall semester of the junior year in which applicants desire to be officially admitted to the program:
 Baccalaureate Nursing Program
 Morehead State University
 UPO Box 715
 Morehead, Kentucky 40351

Admission Criteria

Applicants for the BSN program-RN track are selected based upon the following admission criteria:

1. Hold a current Kentucky license to practice as a registered nurse.
2. Complete the following 45 semester hours of general education courses:

	Sem. Hrs.
ENG 101—English Composition I	3
ENG 102—English Composition II	3
ENG 202, 211, or 212	3
SOC 101—General Sociology	3
CHEM 100 and 100A—Basic Chemistry or	
CHEM 201 and 201A—Survey of General Chemistry	4
CHEM 201 and 201A—Survey of Organic Chemistry	4
MATH 135 or higher	3
PSY 154—Introduction to Psychology	3
PSY 156—Life Span Psychology	3
BIO 217—Elementary Medical Microbiology	4
BIO 331—Human Anatomy	3
BIO 332—Human Physiology	3
HEC 201—Principles of Nutrition	3
Humanities elective	3

3. Minimum grade of "C" in each of the required general education courses.
4. A grade-point average of 2.5 for the required general education courses.

Applicants who will have completed all required general education courses at the end of the current semester are eligible for conditional acceptance based on midterm grades. Final acceptance will be dependent on maintaining course grades and grade-point average as outlined in criteria 2 and 3.

5. Meet the following health and physical capabilities requirements:
 - A. Physical capabilities:
 - (1) Vision capabilities:
 - (a) Normal or corrected refraction within the ranges of 20/20 to 20/190;
 - (b) Able to distinguish color shade changes.
 - (2) Auditory capabilities: Possess normal or corrected hearing ability within 0 to 45 decibels range.
 - (3) Tactile capabilities: Possess in at least one hand the ability to perceive temperature changes and pulsations and to differentiate between various textures and structures.
 - (4) Language capabilities: Possess the ability to communicate verbally.
 - (5) Motor capabilities: Possess 4 functional limbs (normal or artificial) which allow the following functions:
 - (a) Grasp securely with at least one hand;
 - (b) Stand for long periods of time;
 - (c) Walk unassisted.
 - B. Freedom from transmittable disease as documented by:
 - (1) Negative PPD and/or normal chest x-ray within immediate past 12 months;
 - (2) Negative VDRL within immediate past 12 months;
 - (3) Rubella antibody test (HI or HAI) titer greater than 1:8 or documentation of rubella vaccination.
 - C. Immunization as recommended by the Advisory Committee on Immunization Practices of the U.S. Public Health Services and the Committee on Infectious Diseases of the American Academy of Pediatrics.

Verification of health and physical capabilities is documented by the completion of the BSN Health Form by a licensed physician.

BSN Application Form and BSN Health Form are available in the Department of Nursing and Allied Health Sciences.

Conditions for Enrollment

1. Students may be assigned to clinical practicum areas other than those in the immediate Rowan County area, requiring traveling some distance from campus. Transportation to and from these settings is the responsibility of the student.
2. Clinical experiences and formal lectures may be required during various hours of the day, evening, and night.
3. Students have the responsibility for the cost incurred by enrollment in the nursing program. This cost includes clothing, equipment, malpractice insurance, and academic materials.

Required Course Sequence for BSN Students

A total of 133 credit hours is required for the BSN degree which includes 67 credit hours of general education and support courses, 63 credit hours of nursing courses, and 3 credit hours of free electives. BSN program policies on challenge examination, transfer credit, academic standards and progression, and criteria for taking State Board Licensure Examination can be obtained from the Department of Nursing and Allied Health Sciences.

Freshman Year	
First Semester	Sem. Hrs.
ENG 101—English Composition I	3
BIO 331—Human Anatomy	3
PSY 154—Introduction to Psychology	3
MATH 135 or higher	3
CHEM 100 and CHEM 100A—Basic Chemistry	
OR	
CHEM 101 and 101A—Survey of General Chemistry	4
	16
Second Semester	
ENG 102—English Composition II	3
CHEM 201 and CHEM 201A—Survey of Organic Chemistry	4
BIO 332—Human Physiology	3
PSY 156—Life Span Psychology	3
NUR 150—Basic Theories and Concepts	3
NUR 151—Interpersonal Skills for Health	2
	18
Sophomore Year	
First Semester	Sem. Hrs.
ENG 202, 211, or 212	3
NUR 250—Basic Nursing Concepts I	4
NUR 251—Pharmacology	2
BIO 217—Elementary Medical Microbiology	4
SOC 101—General Sociology	3
	16
Second Semester	
NUR 252—Basic Nursing Concepts II (half semester)	4
NUR 253—Mental Health Nursing (half semester)	4
NUR 254—Health Assessment	3

BIO 336—Pathophysiology	4
Humanities elective	3
	18

Junior Year

First Semester	Sem. Hrs.
NUR 350—Nursing Care of the Childbearing Family (half semester)	4
NUR 351—Nursing of Children (half semester)	4
SOC 205—The Family	3
HEC 201—Principles of Nutrition	3
Social sciences elective	3
	17
Second Semester	
NUR 360—Adult Nursing	10
MATH 353—Statistics	3
NUR 361—Introduction to Nursing Research	3
	16

Senior Year

First Semester	Sem. Hrs.
NUR 450—Community Health Nursing (half semester)	4
NUR 451—Geriatric Nursing (half semester)	4
NUR 452—Teaching and Learning in Health Care	2
SPCH 370—Business and Professional Speech	3
DATA 516—Educational Data Processing	3
	16
Second Semester	
NUR 460—Nursing Leadership and Management (half semester)	4
NUR 470—Advanced Clinical Concepts (half semester)	4
NUR 471—Issues and Trends in Nursing	2
Free elective	3
Social science elective	3
	16

Required Course Sequence for RN-Track Students

Junior Year

Fall Semester	Sem. Hrs.
NUR 150—Basic Theories and Concepts	3
NUR 375—Transitional Courses	8
(Validates up to 24 hours of lower nursing course work)	
SOC 205—The Family	3
NUR 251—Pharmacology	2
	16
Spring Semester	
BIO 336—Pathophysiology	4
MATH 353—Statistics	3
NUR 361—Introduction to Nursing Research	3
NUR 352—Health Assessment	3
Social science elective	3
	16

Senior Year

Fall Semester	Sem. Hrs.
NUR 450—Community Health Nursing (half semester)	4
NUR 451—Geriatric Nursing (half semester)	4
NUR 452—Teaching and Learning in Health Care	2
SPCH 370—Business and Professional Speech	3
DATA 516—Educational Data Processing	3
	16
Spring Semester	
NUR 460—Nursing Leadership and Management (half semester)	4
NUR 470—Advanced Clinical Concepts (half semester)	4
NUR 471—Issues and Trends in Nursing	2
Free elective	3
Social science elective	3
	16

Course descriptions begin on page 91

Office Management

(606) 783-2163, 783-2174
306 Combs Building
School of Business and Economics
College of Professional Studies

Faculty—R. Bernardi, S. Hunt, S. Luckey, H. Northcutt, G. Ousley

Associate of Applied Business (Two-Year Program)

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I.....	3
DATA 201—Introduction to Computers	3
ECON 201—Principles of Economics I.....	3
ENG 101—Composition I.....	3
ENG 102—Composition II.....	3
MNGT 160—Introduction to Business	3
MNGT 301—Principles of Management	3
OADM—Typewriting	6
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
OADM 210—Word Processing I.....	3
OADM 220—Word Processing II	3
OADM 321—Business Communications	3
OADM 340—Simulated Office Education	3
OADM 363—Office Management	3
SPCH 370—Business and Professional Speech	3
Approved electives	13
	64

Course descriptions begin on page 91

Ornamental Horticulture

(606) 783-2662
322 Reed Hall
Department of Agriculture and Natural Resources
College of Applied Sciences and Technology

Faculty—M. Norris, B. Rogers, R. Wolfe

Associate of Applied Science (Two-Year Program)

The student must complete a minimum of the 68 semester hours of required courses in the following required course sequence. Additional course electives may also be taken in agriculture and related areas by students wishing greater depth in ornamental horticulture.

Required Course Sequence

	Sem. Hrs.
First Semester	16
BIOL 150—Introduction to Plant Science	3
ENG 101—Composition I.....	3
AGR 101—General Agriculture	1
AGR 212—Landscape Plants	3
GCT 103—Technical Drawing I.....	3
SPCH 110—Basic Speech	3
Second Semester	16
OADM 136—Business Calculations	3
AGR 213—Landscape Gardening	3
ECON 101—Introduction to American Economy	3
AGR 215—Horticulture	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Lab	1
Summer School	6
AGR 235—Supervised Work Experience.....	6
Third Semester	15
AGR 325—Turf Management	3
AGR 321—Greenhouse Production I	3
AGR 211—Soils	3
ENG 192—Technical Composition	3
AGR 350—Farm Power and Machinery Management	3
Fourth Semester	15
AGR 322—Greenhouse Production II	3
AGR 314—Plant Propagation	3
AGR 326—Nursery Management	3
AGR 327—Advanced Landscape Design	3
AGR 317—Floral Design	3

Course descriptions begin on page 91

Paralegal Studies

(606) 783-2655
350 Rader Hall
Department of Geography, Government, and History
College of Arts and Sciences

Faculty—W. Green, K. Schafer

Bachelor of Arts

The paralegal studies program prepares the student to work in a lawyer's office as a legal assistant. The demand for para-legals is growing in business as well as government, and certainly in the public and private practice of law. Under the supervision of a lawyer, the legal assistant performs legal research of various types, interviews clients, performs investigations, takes care of details in probate matters, and does real estate title searches and countless other duties in the law office.

Major

	Sem. Hrs.
GOVT 290—Introduction to Paralegalism	3
GOVT 390—Legal Research and Writing	3
GOVT 391—Contract Law	3
GOVT 392—Property Law	3
GOVT 393—Tort Law	3
GOVT 394—Estate and Family Law	3
GOVT 444—American Constitution	3
GOVT 445—American Courts and Civil Liberties	3
GOVT 490—Civil Procedures	3
GOVT 491—Criminal Procedures	3
GOVT 495—Legal Internship	6
	36

Course descriptions begin on page 91

Personal Development Institute

(606) 783-2595
300 Lloyd Cassity Building
Department of Home Economics
College of Applied Sciences and Technology

Faculty—C. Flatt

There are no academic programs offered by the Personal Development Institute, but courses are available. Please refer to the course description section for course offerings.

Course descriptions begin on page 91

Philosophy

(606) 783-2185
103 Combs Building
Department of English, Foreign Languages, and Philosophy
College of Arts and Sciences

Faculty—B. Gurley, G. Luckey, F. Mangrum

Bachelor of Arts

Major

	Sem. Hrs.
PHIL 200—Introduction to Philosophy	3
PHIL 306—Logic	3
PHIL 505—History of Philosophy I	3
PHIL 506—History of Philosophy II	3
Additional credit in philosophy approved by the department	18
Minimum for a major	30

Minor

	Sem. Hrs.
PHIL 200—Introduction to Philosophy	3
PHIL 306—Logic	3
PHIL 505—History of Philosophy I	3
PHIL 506—History of Philosophy II	3
Additional credit in philosophy approved by the department	9
Minimum for a minor	2

Course descriptions begin on page 91

Physical Education

(606) 783-2180
201 Laughlin Health Building
Department of Health, Physical Education, and Recreation
College of Professional Studies

Faculty—P. Adkins, E. Bentley (chair), M. Brown, B. Crager, L. Fitzgerald, M. Sabie, C. Thompson,

Bachelor of Arts

Major

	Sem. Hrs.
PHED 104—Gymnastics	1
PHED 120—Basic Rhythms	1
PHED 131—Intermediate Swimming	1
PHED 132—Life Saving	1
PHED 150—Introduction to Physical Education	2
PHED 422—Coaching Inter-Scholastic Athletics	3
PHED 301—Evaluation in Health, Physical Education, and Recreation	3
PHED 302—Athletic Injuries	2
PHED 303—Physical Education in the Secondary School	2
PHED 401—Organization and Administration of Physical Education	3
PHED 402—Kinesiology	3
PHED 432—Physiology of Exercise	3
PHED 475—Adapted Physical Education	2
PHED 222or PHED 223—Individual Sports	2
PHED 309, 319, 409, or 419—Team Sports	2
5 activities approved by chairman	5
	36

K-12 Certification Requirements

Students who elect K-12 Certification must take the following:

	Sem. Hrs.
PHED 206—Rhythmical Activities in the Elementary School	2
PHED 300—Physical Education in the Elementary School	2
PHED 311—Movement Exploration	3
PHED 312—Individual and Team Games for Elementary School	4
EDF 211—Human Growth and Development	3
EDEL 333—Fundamentals of Elementary Education	4
	18

Course descriptions begin on page 91

Physics

(606) 783-2914
206 Lappin Hall
Department of Physical Sciences
College of Arts and Sciences

Faculty—R. Brengelman, D. Cutts, C. Whidden

Bachelor of Science

The physics program attempts: (1) to provide a complete undergraduate program which has enough flexibility to permit its graduates to pursue careers as professional physicists in industry or in public school teaching; (2) to enable students to pursue graduate degrees in pure and applied physics; or (3) to provide supportive courses for students in other programs such as applied sciences, biology, chemistry, geology, mathematics, and the pre-professional programs.

Major

Those students who desire a major in physics for supportive purposes or for teacher certification must take the following:

	Sem. Hrs.
PHYS 231—Engineering Physics I*	4
PHYS 231A—Engineering Physics I Lab	1
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Lab	1
PHYS 352—Concepts of Modern Physics	3
PHYS—elective approved by advisor	16
SCI 471—Seminar	1
	30

*PHYS 201-201A, 202-202A, and 212 may be substituted for PHYS 231-231A and 232-232A. (Substitution is recommended only to students who decide to major in physics after completing PHYS 201-201A and 202-202A and is not recommended for pre-engineering students.)

The program above is suggested for students interested in physics as a preparation for a broad range of career opportunities in physics, applied mathematics, scientific computer applications, and other non-scientific fields. It is recommended for students interested in graduate studies in physics. With a double major in mathematics it prepares the student for graduate work in applied mathematics.

Engineering or Applied Physics Emphasis

	Sem. Hrs.
PHYS 231—Engineering Physics I	4
PHYS 231A—Engineering Physics I Lab	1
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Lab	1
PHYS 352—Concepts of Modern Physics	3
PHYS electives approved by advisor from PHYS 211, 221, 332, 340, 361, 381, 391, 410, 411, 412, 452, and 493	16
SCI 471—Seminar	1
	30

The program above is suggested for students interested in engineering or industrial physics. Physics majors are prepared for jobs in industrial physics at the B.S. degree level or for graduate engineering programs. Students following this pro-

gram typically choose to enter graduate degree programs in electrical, mechanical, medical, or computer engineering. The curriculum provides the student with a background in basic physics, mathematics, and computer science which forms the basis of most engineering fields.

Supplemental Requirements

	Sem. Hrs.
CHEM 111—Principles of Chemistry I	4
CHEM 112—Principles of Chemistry II	4
MATH—elective, 300-400 level, approved by advisor	3
	11

Minor

	Sem. Hrs.
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Laboratory	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Laboratory	1
OR	
PHYS 231—Engineering Physics I	4
PHYS 231A—Engineering Physics I Laboratory	1
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Laboratory	1
AND	
PHYS 350—Nuclear Science	4
PHYS—electives, approved by advisor	7-9
	21

Course descriptions begin on page 91

Power and Fluids Technology

(606) 783-2013
210 Lloyd Cassity Building
Department of Industrial Education and Technology
College of Applied Sciences and Technology

Faculty—D. Karwatka

Associate of Applied Science (Two-Year Program)

General Education Requirements

The following specific courses must be included in the general education component (see general education requirements):

	Sem. Hrs.
ENG 101—Composition I	3
MATH 135—Math for Technical Students	3
ECON 101—Introduction to American Economy	3
SPCH 370—Business and Professional Speech	3
ENG 192—Technical Composition	3
	15

Core Requirements

	Sem. Hrs.
IET 160—Introduction to Power and Fluids Mechanics	3
IET 260—Hydraulics and Pneumatics	3
IET 261—Power Mechanics	3
IET 362—Fluid Power	3
GCT 103—Technical Drawing I	3
IET 317—Time and Motion Study	2
IET 360—Internal Combustion Engines I	3
IET 365—Instrumentation	3
EET 140—Basic Electricity	3
IET 319—Quality Control	3
IET 320—Supervisory Practices	3
General elective	1
IET 463—Heating, Ventilating, and Air Conditioning	3
IET 460—Internal Combustion Engines II	3
MFT 186—Manufacturing and Fabrication	3
IET 422—Industrial Safety	3
General elective	4
	49

Course descriptions begin on page 91

Pre-Chiropractic

(606) 783-2959 (D. Brumagen)
327H Lappin Hall
Department of Biological and Environmental Sciences
College of Arts and Sciences

Faculty—D. Brumagen, F. Busroe, G. DeMoss (chair), R. Eversole, J. Howell, D. Magrane, D. McNeely, L. Meade, T. Pass, M. Pryor, D. Saxon, H. Setser, C. Van Bell

The 1968 General Assembly of the Commonwealth of Kentucky passed legislation (H.B. No. 147) requiring a minimum of 60 semester hours of study in an accredited college or university as prerequisite to any person becoming eligible for licensure to practice any healing art (including chiropractic medicine). A student who desires to pursue this course of study should consult the catalog of the chiropractic school which he or she plans to attend.

Requirements

Pre-chiropractic students generally follow the curriculum designed for the biology major and chemistry minor. However, certain complementary and specific general education courses are recommended. A suggested curriculum is available from the pre-chiropractic advisor.

Course descriptions begin on page 91

Pre-Dentistry

(606) 783-2959 (D. Brumagen)
327H Lappin Hall
Department of Biological and Environmental Sciences
College of Arts and Sciences

Faculty—D. Brumagen, F. Busroe, G. DeMoss (chair), R. Eversole, J. Howell, D. Magrane, D. McNeely, L. Meade, T. Pass, M. Pryor, D. Saxon, H. Setser, C. Van Bell

The Council on Dental Education of the American Dental Association has established minimum requirements for admission to dental schools. Basic requirements are built around the successful completion of two full years of work in an accredited liberal arts and sciences college or university. Minimum course requirements include one year of study in each of the areas of English, biology, physics, general chemistry, and at least one semester of organic chemistry. It is important that all science classes include both lecture and laboratory instruction. Dental schools do not encourage students to apply with such minimal preparation, because the selection of applicants is also based on the demonstration of superior qualification in personal maturity and academic competence. Three, and preferably four, years of undergraduate preparation are necessary to provide students with those qualifications that will permit entry into dental schools. Pre-dental students should have a good background in sciences and mathematics beyond the minimum requirements and they should also cultivate interests in literature, music, art, speech, languages, social sciences, and psychology. For purposes of scheduling, course selection, and complete preparation for professional school, the pre-dental student must work closely with the faculty advisor.

A student who follows a program that includes the requirements for graduation and enters dental school at the end of the junior year may, after successfully completing the first year at dental school, transfer credits to Morehead State University and receive the bachelor's degree, provided he or she lacks six hours or fewer general education requirements with not more than one course needed in any one of the four different general education areas.

Requirements

Pre-dental students generally follow the curriculum designed for the biology major and chemistry minor. However, certain complementary and specific general education courses are recommended. An academic handbook and suggested curriculum are available from the pre-dental advisor.

Course descriptions begin on page 91

Pre-Engineering

(606) 783-2914
206 Lappin Hall
Department of Physical Sciences
College of Arts and Sciences

Faculty—R. Brengelman, D. Cutts, C. Whidden

Two-Two Program (Transfer)

The student spends two years of study in pre-engineering at Morehead State University. Elective courses are chosen to meet the requirements of the four-year engineering school to which the student plans to transfer to complete a baccalaureate degree in an engineering field.

This program is intended for the engineering student who wishes to complete a Bachelor of Science degree in engineering as quickly as possible. Students can also receive the Associate of Science degree in engineering science.

Suggested Program

FIRST YEAR

First Semester

	Sem. Hrs.
ENG 101—Composition I.....	3
*MATH 175—Analytic Geometry and Calculus I.....	4
CHEM 111—Principles of Chemistry I.....	4
PSY 154—Introduction to Psychology.....	3
GEO 100—Fundamentals of Geography.....	3
	17

Second Semester

ENG 102—Composition II.....	3
MATH 275—Analytic Geometry and Calculus II.....	4
CHEM 112—Principles of Chemistry II.....	4
Appreciation of Fine Arts.....	3
MATH 260—FORTRAN Programming I.....	3
	17

SECOND YEAR

First Semester

MATH 276—Analytic Geometry and Calculus III.....	4
PHYS 231—Engineering Physics I.....	4
PHYS 231A—Engineering Physics I Lab.....	1
**ECON 201—Principles of Economics I.....	3
ENG 202—Introduction to Literature.....	3
	15

Second Semester

MATH 363—Differential Equations.....	3
PHYS 232—Engineering Physics II.....	4
PHYS 232A—Engineering Physics II Lab.....	1
PHYS 221—Statics.....	3
ECON 202—Principles of Economics II.....	3
	14

*Students who have not had one semester of trigonometry in high school may be required to take MATH 141—Trigonometry, before taking MATH 175.
**ECON 201 is a required course for the University of Kentucky mechanical engineering major and not taken for general studies elective credit. ECON 202 is regarded as a general studies elective.

Three-Two Program (Dual Degree)

The student completes three years of study in chemistry, mathematics, and physics at Morehead State University before transferring to the University of Kentucky or Auburn University to complete the final two years of engineering course work in a specific field of engineering. Upon completing work at both schools, the student receives dual degrees: a B.S. degree in physics and mathematics or the Bachelor of University Studies in physical sciences from Morehead State University and a Bachelor of Science degree in engineering from the University of Kentucky or Auburn University. All engineering specialties are available in this program.

This program is designed for the student desiring a stronger mathematics and science background before completing engineering studies. In addition, many potential employers are interested in students with strong liberal arts training to deal with the ethical and social impact of engineering activities.

Course descriptions begin on page 91

Pre-Forestry

(606) 783-2662
332 Reed Hall
Department of Agriculture and Natural Resources
College of Applied Sciences and Technology

Faculty—R. Wolfe, B. Rogers

Students interested in forestry may take their first two years of course work at Morehead State University and then complete their studies at an accredited school of forestry. If at the end of two years a student does not secure admission to an accredited school of forestry, most of the credits earned may be applied toward a degree at Morehead State University. The program may be modified to meet entrance requirements at any institution offering a forestry program.

Required Course Sequence

	Sem. Hrs.
First Semester.....	17
ENG 101—Composition I.....	3
BIOL 150—Introduction of Plant Science.....	3
CHEM 101—Survey of General Chemistry.....	3
CHEM 101A—Survey of General Chemistry Laboratory.....	1
MATH 175—Analytic Geometry and Calculus I.....	4
PHED—activity course.....	1
General elective.....	2

Second Semester	16
ENG 192—Technical Composition	3
AGR 180—Elementary Field Crops	3
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Laboratory	1
MATH 353—Statistics	3
PHED—activity course	1
General elective	2
Third Semester	17
SOC 170—Rural Sociology	3
PHYS 201, 201A—Elementary Physics I and Laboratory	4
BIOL 215—General Botany	4
CON 102—Surveying I	3
AGR 211—Soils	3
Fourth Semester	15
HIS 141—Introduction to Early American History	3
SPCH 110—Basic Speech	3
ECON 201—Principles of Economics I	3
PSY 154—Introduction to Psychology	3
ENG—literature elective	3
	65

Course descriptions begin on page 91

Pre-Law

(606)783-2655
350 Rader Hall
Department of Geography, Government, and History
College of Arts and Sciences

Faculty—L. Back, J. Bizzel

The field of government is recommended as desirable training for pre-law students. While there is no officially prescribed pre-law curriculum, most law schools require the bachelor's degree for entrance; therefore it is recommended that preparatory studies be directed toward the goal. All general education requirements should be met, as well as a degree in some particular field.

Course descriptions begin on page 91

Pre-Medicine

(606) 783-2295 (D. Saxon)
327A Lappin Hall
Department of Biological and Environmental Sciences
College of Arts and Sciences

Faculty—D. Brumagen, F. Busroe, G. DeMoss (chair), R. Eversole, J. Howell, D. Magrane, D. McNeely, L. Meade, T. Pass, M. Pryor, D. Saxon, H. Setser, C. Van Bell

Most medical schools require a minimum number of specific science courses. Applicants must have completed the following courses prior to entrance: one year each of biology, physics, general chemistry, and organic chemistry. Additional requirements include one year of English and at least one semester of algebra, trigonometry, and psychology. These specific courses and the successful completion of a baccalaureate degree represent basic requirements for entrance to medical schools, and it is highly recommended that these requirements be supplemented by additional study in a variety of subject areas. It is desirable that the pre-medical student take advanced courses in chemistry, mathematics, physics, and biology. It is most important that the pre-medical student balance a scientific education with courses selected from the arts, humanities, and social sciences. For purposes of scheduling, courses selection, and complete preparation for professional school, the pre-medical student must work closely with the faculty advisor.

Since specific requirements vary among medical schools, it is essential that the student investigate the requirements of the medical school of his or her choice during the first two years of the preparatory program.

Requirements

Pre-medical students generally follow the curriculum designed for the biology major and chemistry minor, although other options may be completed. However, certain complementary and specific general education courses are recommended. An academic handbook and suggested curriculum are available from the pre-medical advisor.

Course descriptions begin on page 91

Pre-Optometry

(606) 783-2914 (D. Cutts)
206 Lappin Hall
Department of Physical Sciences
College of Arts and Sciences

Faculty—R. Brengelman, D. Cutts, C. Whidden

The Pre-Optometry Program is basically a two- to three-year preparatory program designed to meet the entrance requirements of most optometry schools. However, many pre-optometry students elect to pursue a four-year degree program in the biological or physical sciences. Before seeking admission to an optometry school, students must take the Optometry College Admission Test. The Commonwealth of Kentucky will pay a portion of the fees for Kentucky residents enrolled at the Southern College of Optometry (Memphis), the University of Alabama Optometry School, or the University of Houston School of Optometry.

Suggested Program

FIRST YEAR

First Semester	Sem. Hrs.
ENG 101—Composition I.....	3
CHEM 111—Principles of Chemistry I.....	3
CHEM 111A—Principles of Chemistry I Laboratory.....	1
*MATH 152—College Algebra.....	3
BIOL 208—Invertebrate Zoology.....	3
PSY 152—General Psychology.....	3
	16

Second Semester

ENG 102—Composition II.....	3
CHEM 112—Principles of Chemistry II.....	3
CHEM 112A—Principles of Chemistry II Laboratory.....	1
*MATH 141—Plane Trigonometry.....	3
BIOL 209—Vertebrate Zoology.....	3
GOVT 100—Introduction to Government.....	3
	16

SECOND YEAR

First Semester

SPCH 110—Basic Speech.....	3
PHYS 201—Elementary Physics I.....	3
PHYS 201A—Elementary Physics I Laboratory.....	1
MATH 175—Analytic Geometry and Calculus I.....	4
CHEM 326—Organic Chemistry I.....	3
CHEM 326A—Organic Chemistry I Laboratory.....	1
	15

Second Semester

PHYS 202—Elementary Physics II.....	3
PHYS 202A—Elementary Physics II Laboratory.....	1
MATH 275—Analytic Geometry and Calculus II.....	4
CHEM 327—Organic Chemistry II.....	3
CHEM 327A—Organic Chemistry II Laboratory.....	1
BIOL 317—Principles of Microbiology.....	4
	16

*Not necessary if student takes MATH 175.

Course descriptions begin on page 91

Pre-Pharmacy

(606) 783-2951 (F. Busroe)

316 Lappin Hall

Department of Biological and Environmental Sciences
College of Arts and Sciences

Faculty—D. Brumagen, F. Busroe, G. DeMoss (chair), R. Eversole, J. Howell, D. Magrane, D. McNeely, L. Meade, T. Pass, M. Pryor, D. Saxon, H. Setser, C. Van Bell

The suggested program of pre-pharmacy study at MSU will meet the general requirements for most pharmacy schools. It can be modified to satisfy the needs of the individual student.

Admission to a school of pharmacy may be obtained after completion of a two-year pre-pharmacy program, although it often takes three years. Depending on the degree program followed, three or four additional years are required to complete pharmacy school.

Requirements

Pre-pharmacy students generally follow the curriculum designed for the biology major and chemistry minor. However, certain complementary and specific general education courses are recommended. An academic handbook and suggested curriculum are available from the pre-pharmacy advisor.

Course descriptions begin on page 91

Pre-Physical Therapy

(606) 783-2958 (C. VanBell)

327G Lappin Hall

Department of Biological and Environmental Sciences
College of Arts and Sciences

Faculty—D. Brumagen, F. Busroe, G. DeMoss (chair), R. Eversole, J. Howell, D. Magrane, D. McNeely, L. Meade, T. Pass, M. Pryor, D. Saxon, H. Setser, C. Van Bell

Students who plan to complete a degree in physical therapy should consult the catalog of the school of physical therapy they plan to attend to be certain they fulfill the requirements of the chosen school. Most schools of physical therapy require 60 to 65 hours of course work in a pre-physical therapy program.

The suggested curriculum may be varied according to individual preferences.

Requirements

Pre-physical therapy students generally follow the curriculum designed for the biology major and chemistry minor. However, certain complementary and specific general education courses are recommended. An academic handbook and suggested curriculum are available from the pre-physical therapy advisor.

Course descriptions begin on page 91

Pre-Veterinary Medicine

(606) 783-2662

332 Reed Hall

Department of Agriculture and Natural Resources

College of Applied Sciences and Technology

Faculty—J. Willard (chair)

Students interested in becoming veterinarians may enroll in the Department of Agriculture and Natural Resources at Morehead State University and complete their requirements for admission to veterinary school.

The state of Kentucky is a participating member in the Southern Regional Education Board's plan under which legal Kentucky residents may attend schools of veterinary medicine at Auburn University and Tuskegee Institute. In this program, the students accepted to those universities are exempt from out-of-state tuition and would pay only the in-state tuition of that university. Ohio residents may complete the requirements for admission to the veterinary school at Ohio State University.

A minimum of 80 to 90 semester hours of specified course work is required for application to a school of veterinary medicine. A grade of D in required courses will not be accepted by these universities. The final selection is made by the admissions committee of the respective school of veterinary medicine.

The following curriculum is designed to meet the requirements of Auburn and Tuskegee Institute. Three years are normally required for completion.

Required Course Sequence

FRESHMAN YEAR	Sem. Hrs.
First Semester	17
ENG 101—Composition I	3
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Lab	1
AGR 133—Farm Livestock Production	3
BIOL 208—Invertebrate Zoology	3
HIS 131—Introduction to Civilization I	3
PE—Activity Course	1
Second Semester	17
ENG 102—Composition II	3
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
HIS 132—Introduction to Civilization II	3
MATH 152—College Algebra*	3
BIOL 209—Vertebrate Zoology	3
PE—Activity course	1

SOPHOMORE YEAR

First Semester	17
GOVT 141—Government of the U.S.	3
MATH 141—Plane Trigonometry*	3
BIOL 215—Botany or BIOL 150—Introduction to Plant Science	4
CHEM 326, 326A—Organic Chemistry I and Laboratory	4
HUM elective	3
Second Semester	17
PHYS 201, 201A—Elementary Physics I and Laboratory	4
CHEM 327, 327A—Organic Chemistry II and Laboratory	4
BIOL 317—Principles of Microbiology	4
HLTH 150—Personal Health	2
Social science elective	3

JUNIOR YEAR

First Semester	17
PHYS 202—Elementary Physics II	4
BIOL 304—Genetics	4
AGR 316—Feeds and Feeding	3
AGR—Electives**	4
Social Science or Humanities Elective	3
Second Semester	15
MATH 175—Analytic Geometry and Calculus I	4
ALH 302—Medical Terminology	2
AGR 515—Animal Nutrition	3
AGR electives**	6

*Students may by-pass MATH 141 and 152 through the mathematics placement examination.

**These courses are not required in the pre-veterinary curriculum but are highly recommended for the students who plan to earn a bachelor of science degree from the Department of Agriculture and Natural Resources.

Course descriptions begin on page 91

Production Management

(606) 783-2475, 783-2174

314 Combs Building

School of Business and Economics

College of Professional Studies

Faculty—R. Meadows

Bachelor of Business Administration

Production Management Option

General Education Requirements

The following specific courses must be included in the 42 hour general education component (see general education requirements):

	Sem. Hrs.
SPCH 370—Business and Professional Speech	3
MATH 160—Mathematics for Business and Economics	3
MATH 354—Business Statistics	3
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3

Core Requirements

ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
ECON 350—Microeconomic Theory	3
FIN 360—Business Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
MNGT 306—Production Management	3
MNGT 472—Business Policies and Problems	3
OADM 321—Business Communications	3

Program Requirements

	Sem. Hrs.
BBA Core.....	33
ACCT 390—Cost Accounting I.....	3
MNGT 311—Personnel Management.....	3
MNGT 411—Labor Relations.....	3
MNGT 506—Operations Analysis.....	3
At least 11 hours from:	
GCT 103—Technical Drawing I.....	3
MFT 286—Machine Tool Processes.....	3
IET 317—Time and Motion Study.....	2
IET 319—Quality Control.....	3
IET 422—Industrial Safety.....	3
IET 472—Basic Industries Practicum.....	2
	56

Course descriptions begin on page 91

Psychology

(606) 783-2981
601 Ginger Hall
Department of Psychology
College of Professional Studies

Faculty—L. Clough, S. Cody, A. Demaree, J. Gotsick, B. Mattingly,
C. Morgan, F. Osborne, G. Tapp (chair)

Bachelor of Arts

Psychology majors seeking teacher certification must also present a teaching minor. See “Teacher Education Program” and “Professional Laboratory Experiences” requirements.

Major

	Sem. Hrs.
PSY 154—Introduction to Psychology.....	3
PSY 381—Experimental Psychology I.....	3
PSY 585—Systems and Theories.....	3
MATH 353—Statistics	
OR	
EDSP 581—Educational Statistics.....	3
Selected from the following categories:	
Biopsychology.....	3
PSY 521—Physiological Psychology	
OR	
PSY 583—Sensory Psychology	

Developmental.....	3
PSY 156—Life-span Developmental Psychology	
OR	
PSY 557—Seminar in Developmental Research	
Experimental.....	3
PSY 554—Seminar in Social Psychology	
OR	
PSY 582—Experimental Psychology II	
OR	
PSY 584—Perception	
Learning and Motivation.....	3
PSY 559—Behavior Modification	
OR	
PSY 586—Motivation	
OR	
PSY 589—Psychology of Learning	
Social and Personality.....	3
PSY 354—Introduction to Social Psychology	
OR	
PSY 390—Psychology of Personality	
OR	
PSY 555—Environmental Psychology	
OR	
PSY 556—Introduction to Clinical Psychology	
OR	
PSY 590—Abnormal Psychology	
Elective (selected from courses not used as required courses, or from the following courses).....	9
PSY 157—Psychology of Adjustment.....	3
PSY 199—Workshop.....	1-3
PSY 276—Independent Study.....	1-3
PSY 353—Industrial Psychology.....	3
PSY 422—Comparative Psychology.....	3
PSY 470—Research Problems.....	3
PSY 558—Psychological Testing.....	3
PSY 575—Selected Topics.....	1-3
PSY 591, 592, 593—Computer Packages for the Life Sciences.....	3
PSY 599—Workshop.....	1-3
	36

Additionally, for teacher certification:

EDF 207—Foundations of Education.....	3
EDF 211—Human Growth and Development.....	3
EDF 311—Learning Theories in the Classroom.....	3
EDSE 312—Teaching Skills and Media.....	3
EDSP 332—Teaching the Exceptional Student.....	2
Professional semester:	
EDSE 415—Teacher in Today's Schools.....	3
EDSE 416—Student Teaching.....	12
	29

Minor

	Sem. Hrs.
PSY 154—Introduction to Psychology.....	3
MATH 353—Statistics	
OR	
EDSP 581—Educational Statistics.....	3
Psychology electives.....	18
	24

Course descriptions begin on page 91

Radio-Television

(606) 783-2602, (606) 783-2134 (chair)
211 Breckinridge Hall, 109 Breckinridge Hall (chair)
Department of Communications
College of Arts and Sciences

Faculty—Michael Biel, David Collins, Dale Greer, Thomas Yancy

Restrictions Applying to All Programs in Communications

A student may credit toward a program of study in the Department of Communications a limited number of hours from any combination of the following courses, each of which is available in the academic areas of journalism, radio-TV, speech, and theatre:

Communications Cooperative Study 139, 239, 339, 439, 539.

Communications Internship 347, 447.

Special Problems 476.

In each communications program, no more than 9 hours in any combination of the courses listed above may be applied toward an area of concentration, a major, or an associate degree. No more than 6 such hours may be applied toward a minor.

Credit hours earned in these courses which exceed the limits above will not apply to program requirements, but may be applied to the minimum requirements for an A.B. or A.A.A. degree.

Bachelor of Arts

Because typing is very important in broadcasting work, and because it is required in some courses, students in radio-television are encouraged to develop typing skills before entering the program. Some may want to take a typing course during their first semester.

Major (Non-Teaching)

	Sem. Hrs.
R-TV 150—Intro. to Broadcasting.....	3
R-TV 151—Intro. to Broadcast Techniques.....	2
R-TV 240—Writing for Broadcast.....	3
R-TV 250—Audio Productin and Direction.....	4
R-TV 338—Radio Operating Practices.....	1
R-TV 340—Video Production and Direction I.....	3
R-TV 344—Broadcast News and Public Affairs	
OR	
R-TV 450—Broadcast Management.....	3
R-TV 459—Broadcast Law and Regulations.....	3
SPCH 100—Voice and Articulation.....	3
Electives.....	11
	36

Minor (Non-Teaching)

R-TV 150—Intro. to Broadcasting.....	3
R-TV 151—Intro. to Broadcast Techniques.....	2
R-TV 240—Writing for Broadcast.....	3
SPCH 100—Voice and Articulation.....	3
Electives.....	10
	21

Associate of Applied Arts

Broadcasting

	Sem. Hrs.
R-TV 150—Introduction to Broadcasting.....	3
R-TV 151—Introduction Broadcast Techniques.....	2
R-TV 240—Writing for Broadcast.....	3
R-TV 250—Audio Production and Direction I.....	4
R-TV 283—Basic Black and White Photography.....	3
R-TV 338—Radio Operating Practices.....	1
R-TV 340—Video Production and Direction I.....	3
R-TV 344—Broadcast News and Public Affairs.....	3
R-TV 440—Video Production and Direction II.....	4
OR	
R-TV 451—Professional Audio Practices*.....	3
R-TV 450—Broadcast Management.....	3
JOUR 201—News Writing and Reporting.....	3
JOUR 382—Principles of Public Relations.....	3
JOUR 383—Principles of Advertising.....	3
SPCH 100—Voice and Articulation.....	3
SPCH 110—Basic Speech.....	3
COMM Internship (R-TV).....	3

*Since R-TV 440 is a 4-hour course, those who elect to take 451 must take an additional elective hour in R-TV.

An additional 17 hours must be taken as specified under the general education requirements for an associate degree.

Broadcast Operations

	Sem. Hrs.
R-TV 150—Introduction to Broadcasting.....	3
R-TV 151—Introduction to Broadcast Techniques.....	2
R-TV 240—Writing for Broadcast.....	3
R-TV 250—Audio Production and Direction I.....	4
R-TV 320—Broadcast Advertising and Sales.....	3
R-TV 340—Video Production and Direction I.....	3
R-TV 344—Broadcast News and Public Affairs.....	3
R-TV 450—Broadcast Management.....	3
R-TV 459—Broadcast Law and Regulations.....	3
IET 240—Basic Electricity.....	3
IET 241—Basic Electronics.....	3
IET 338—Radio Operating Practices.....	3
IET 341—Transistors and Semiconductors.....	3
IET 342—Communications Electronics.....	3
IET 345—Television Electronics.....	4
IET 346—Transmitter Electronics.....	4
MATH 152—College Algebra.....	3
MATH 141—Plane Trigonometry.....	3
SPEH 100—Voice and Articulation.....	3

An additional 15 hours must be taken as specified under the general education requirements for an associate degree.

Course descriptions begin on page 91

Radiologic Technology

(606) 783-2647, (606) 783-2632

410 Reed Hall, 234 Reed Hall

Department of Nursing and Allied Health Sciences, B. Porter (chair)
College of Applied Sciences and Technology

Faculty—B. Barker, J. Darling, R. Smith (coordinator)

Associate of Applied Science (Two-Year Program)

The Joint Review Committee on Education in Radiologic Technology accredited associate degree Radiologic Technology Program (RT) is designed to prepare individuals for entry into the health care profession of radiologic technology.

Students accepted into the program must spend a minimum of 24 months enrolled in the RT Program. The RT students spend 50% of their time fulfilling clinical education requirements and gaining "hands on" clinical experience in three different hospitals associated with the program. The RT Program is currently affiliated with the following nine hospitals: Harlan Appalachian Regional Hospital in Harlan, Ky.; Hazard Appalachian Regional Hospital in Hazard, Ky.; Highlands Regional Medical Center in Prestonsburg, Ky.; Humana Hospital of Lake Cumberland in Somerset, Ky.; Mary Chiles Hospital in Mount Sterling, Ky.; Humana Hospital—Louisa in Louisa, Ky.; Meadowview Regional Hospital in Maysville, Ky.; Morgan County Appalachian Regional Hospital in West Liberty, Ky.; and Saint Claire Medical Center in Morehead, Ky.

Qualified graduates of the RT program are eligible to sit for the American Registry of Radiologic Technologists' national certification examination.

Admission Requirements and Procedures for Radiologic Technology Program

The RT Program has a selective admission policy which is separate, and in addition to, the university's admission procedures. The selection of students for the RT Program is based on a weighted point rating scale. The admission procedure and the requirements for RT admission are outlined as follows:

Application Procedure

1. Apply to Morehead State University through the university's Office of Admissions.
2. Submit required materials listed below to the Radiologic Technology Program.
 - a. Completed RT application form.
 - b. Copy of American College Test Scores (ACT).
 - c. Copy of Nelson-Denny Reading Test Scores, Form E or F.
 - d. Official copy of high school transcript or GED scores, and if applicable, college transcripts.
 - e. Completed department health form.
 - f. Three completed department Personal Reference Information Sheets.

3. Applicants reapplying to associate degree RT Program must submit new application materials for reconsideration of program admission.
4. In order to be considered for admission to the associate degree RT Program, all materials must be submitted to the following address during the acceptance period, which is January 15 to May 15 of each year (or until class is filled):

Director of Student Services
Morehead State University
Department of Nursing and Allied Health Sciences
UPO Box 715, Reed Hall
Morehead, Kentucky 40351

Applicants may contact the MSU Testing and Evaluation Center, Room 501, Ginger Hall at (606) 783-2526 for information about the American College Test (ACT) and the Nelson-Denny Reading Test availability.

Admission Requirements:

The Radiologic Technology Program has a limited enrollment of 31 students per year. In order to be admitted to the RT Program, the applicant must meet the following requirements:

1. Be admitted to Morehead State University.
2. Be a high school graduate or have obtained a GED.
3. Be 18 years of age or show evidence that the applicant will be 18 years old before the beginning of the second semester of the program. (The state and federal radiation regulations require that minors receive no more than 10% of the accumulated dose of radiation for workers in radiologic health occupations.)
4. Verification of health and physical capabilities is documented by the completion of the department Health Form by a licensed physician. RT Application Form and department Health Form are available in the Department of Nursing and Allied Health Sciences.
5. Achieve a minimum of 100 cumulative points for the academic ability component and the personal characteristic component considered in the RT Admission Point Rating Scale.
 - a. Academic ability component, 75 points required, equates to 75% of the RT Admission Point requirements. The component is determined by evaluation of high school cumulative grade-point average and the g.p.a. for biological or physical sciences and math GED scores or college g.p.a.; ACT scores; and Nelson-Denny Reading Test Scores.
 - b. Personal Characteristics Component: 25 points desired, equates to 25% of the RT Admission Point Rating Requirement. The rating points for this component are obtained from evaluation of three personal reference forms, a faculty interview, and a clinical personnel interview.

Fees and Expenses

Fees and expenses specific to the Radiologic Technology Program are in addition to those required by the university. These are subject to change without prior notification. The following fees to be paid by the student, will be collected by the department:

1st Semester—\$5.50 Radiologic film markers fee; \$1.00 dosimeter set-up fee; \$8.40 dosimeter service fee; \$13.50 liability insurance fee; \$5.00 CPR fee.

2nd Semester—\$8.40 dosimeter service fee.

3rd Semester—\$8.40 dosimeter service fee; \$13.50 liability insurance fee.

4th Semester—\$5.00 CPR fee; \$8.40 dosimeter service fee; \$11.00 class picture fee; \$1.50 radiation termination report; and \$25.00 ARRT assess test fee.

Other expenses students are responsible for: the purchase of white uniform, white hose (if applicable), white clinical shoes, white lab coat, program patches for each uniform and an identification name pin (the latter is available from the University Store); and all housing and transportation expenses incurred during clinical internship assignments. Also, the national certification examination, given by the American Registry for Radiologic Technologists following graduation from the RT Program, requires a \$35.00 application fee, and any student dosimeters lost or damaged require a \$2.00 replacement fee. Optional fees include: the purchase of a school pin upon graduation and additional graduation announcements.

Program Requirements

All RAD courses must be taken in sequence as listed. AHS 302 and BIO 331 must be taken prior to entry into the second semester of the program. RT program policies on pregnancy and academic standards and progression, can be obtained from the Department of Nursing and Allied Health Sciences.

	Sem. Hrs.
FIRST SEMESTER	16
RAD 110—Radiographic Anatomy and Positioning I	4
RAD 120—Radiologic Technology I	4
AHS 302—Medical Terminology	2
MATH 135—Mathematics for Technical Students	3
BIOL 331—Human Anatomy	3
SECOND SEMESTER	12
RAD 130—Clinical Internship I	10
RAD 131—Special Problems—Nursing Procedures	2
FIRST SUMMER SESSION	6
RAD 210—Radiographic Anatomy and Positioning II	3
ENG 101—Composition I	3
SECOND SUMMER SESSION	6
RAD 220—Radiographic Anatomy and Positioning III	3
RAD 260—Advanced Radiographic Procedures	3
THIRD SEMESTER	12
RAD 230—Clinical Internship II	10
RAD 231—Special Problems—Radiographic Quality	2
FOURTH SEMESTER	18
RAD 240—Radiologic Technology II	3
RAD 250—Radiation Physics and Electronics	3
BIOL 332—Human Physiology	3
ENG 192—Technical Composition	3
PSY 154—Introduction to Psychology	3
RAD 320—Radiographic Pathology and Biology	3

FIRST SUMMER SESSION	4
RAD 330—Clinical Internship III	4
SECOND SUMMER SESSION	4
RAD 340—Clinical Internship IV	4

78

Course descriptions begin on page 91

Real Estate

(606) 783-2776, 783-2174
212 Combs Building
School of Business and Economics
College of Professional Studies

Faculty—B. McCormick

Bachelor of Business Administration

Real Estate Option

General Education Requirements

The following specific courses must be included in the 42 hour general education component (see general education requirements)

	Sem. Hrs.
SPCH 370—Business and Professional Speech	3
MATH 160—Mathematics for Business and Economics	3
MATH 354—Business Statistics	3
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3

Core Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
ECON 350—Microeconomic Theory	3
FIN 360—Business Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
MNGT 306—Production Management	3
MNGT 472—Business Policies and Problems	3
OADM 321—Business Communications	3
	33

Program Requirements

	Sem. Hrs.
BBA Core	33
REAL 105—Principles of Real Estate	3
REAL 310—Real Estate Law	3
REAL 320—Real Estate Marketing	3
REAL 325—Appraisal of Residential Property	3
REAL 331—Real Estate Finance	3
Approved real estate electives	6
	54

Bachelor of Science

Minor

Students selecting programs with real estate minor should first consult with advisors in their major areas.

Course Requirements

	Sem. Hrs.
REAL 105—Principles of Real Estate.....	3
REAL 310—Real Estate Law.....	3
REAL 320—Real Estate Marketing.....	3
REAL 325—Appraisal of Residential Property.....	3
REAL 331—Real Estate Finance.....	3
Approved real estate electives.....	9
	24

Associate of Applied Business

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I.....	3
ACCT 282—Principles of Accounting II.....	3
DATA 201—Introduction to Computers.....	3
ECON 201—Principles of Economics I.....	3
ECON 202—Principles of Economics II.....	3
ENG 101—Composition I.....	3
ENG 102—Composition II.....	3
FIN 252—Mathematics of Finance.....	3
FIN 407—Principles of Insurance.....	3
OADM 321—Business Communications.....	3
REAL 105—Principles of Real Estate.....	3
REAL 310—Real Estate Law.....	3
REAL 320—Real Estate Marketing.....	3
REAL 325—Appraisal of Residential Property.....	3
REAL 331—Real Estate Finance.....	3
REAL 400—Real Estate Brokerage.....	3
Real estate elective.....	3
SOC 101—General Sociology.....	3
Approved electives.....	1
	64

Course descriptions begin on page 91

AGR 211—Soils.....	3
AGR 311—Soil Conservation.....	3
AGR 312—Soil Fertility and Fertilizers.....	3
OR	
AGR 384—Forage Crops.....	(3)
MIN 101—Introduction to Mining and Reclamation.....	3
MIN 103—Mine Drafting.....	3
MIN 206—Mine Surveying.....	3
MIN 305—Surface Mining Systems.....	3
RCL 301—Reclamation Laws and Regulations.....	3
RCL 302—Reclamation Management and Systems Planning I.....	4
Approved electives.....	18

Minor

The student must complete a minimum of the 22 semester hours of courses in the following required list, plus a major selected in another field. General course electives may also be taken in agriculture, mining, and related areas by students wishing greater depth in reclamation technology.

	Sem. Hrs.
Required courses in reclamation technology.....	22
RCL 301—Reclamation Laws and Regulations.....	3
RCL 302—Reclamation Management and Systems Planning I.....	4
CON 102—Surveying I.....	3
MIN 103—Mine Drafting.....	3
MIN 305—Surface Mining Systems.....	3
Approved electives.....	6

Course descriptions begin on page 91

Recreation

(606) 783-2180

201 Laughlin Health Building

Department of Health, Physical Education, and Recreation

College of Professional Studies

Faculty—E. Bentley (chair), R. Chaney, H. Nesbitt

Reclamation Technology

(606) 783-2649

325 Reed Hall

Department of Agriculture and Natural Resources

College of Applied Sciences and Technology

Faculty—K. Darling, C. Patrick, B. Rogers

Associate of Applied Science (Two-Year Program)

The student must complete a minimum of the 49 semester hours of required courses in the following list. Additional course electives may also be taken in agriculture, mining, and reclamation technology.

Core Requirements

	Sem. Hrs.
Required courses.....	49
AGR 180—Elementary Field Crops.....	3

Bachelor of Arts

Major

	Sem. Hrs.
REC 201—Outdoor Recreation.....	3
REC 209—Recreational Sports.....	2
REC 285—Community Recreation.....	2
REC 286—Recreational Leadership.....	2
REC 288—Recreational Arts and Crafts.....	2
REC 290—Field Experience I.....	1
REC 305—Social Recreation.....	2
REC 310—Youth Organization.....	2
REC 375—Creative Dramatics.....	3
REC 388—Community Centers and Playgrounds.....	3
REC 390—Field Experience II.....	1
REC 471—Seminar.....	1
REC 475—Therapeutic Recreation.....	3
REC 477—Recreation Internship.....	8
REC 580—Outdoor Interpretation.....	3
	38

Minor

The minor requires 21 hours approved by the department head.

Course descriptions begin on page 91

Religious Studies

(606) 783-2185
103 Combs Building
Department of English, Foreign Languages, and Philosophy
College of Arts and Sciences

Faculty—G. Luckey, F. Mangrum, M.K. Thomas

There are no academic programs in religious studies, but courses are available. Please refer to the Description of Course section for course offerings.

Course descriptions begin on page 91

Russian

(606) 783-2185
103 Combs Building
Department of English, Foreign Languages, and Philosophy
College of Arts and Sciences

Faculty—M. Pryor

There are no academic programs in Russian, but courses are available. Please refer to the course description section for course offerings.

Course descriptions begin on page 91

Safety Education

(606) 783-2180
201 Laughlin Health Building
Department of Health, Physical Education, and Recreation
College of Professional Studies

Faculty—E. Bentley (chair), B. Crager, C. Thompson

Minor

	Sem. Hrs.
HLTH 203—Safety and First Aid.....	3
HLTH 200—Introduction to Driver Education.....	3
HLTH 201—Administration of Driver and Traffic Education.....	3
HLTH 202—Supervision of Safety Education.....	3
HLTH 306—Methods of Teaching Driver Education.....	3
HLTH 307—Intermediate Driver Education.....	3
HLTH 400—Advanced Driver Education.....	3
	21

Course descriptions begin on page 91

Secondary Science Teaching

(606) 783-2944
102 Lappin Hall
Department of Biological and Environmental Sciences
College of Arts and Sciences

(606) 783-2914
206 Lappin Hall
Department of Physical Sciences
College of Arts and Sciences

Advisor: Check with appropriate departmental office.

Area of Concentration (Teaching)

A student can become certified as a secondary science teacher by completing a Bachelor of Science degree with an area of concentration in science. The student is required to complete the core of courses listed in part A as well as an emphasis in biology, chemistry, earth science, or physics as presented in part B. In addition, the student will be expected to complete the mathematics curriculum listed in part C. The student must also complete the Teacher Education Program discussed elsewhere in this catalog. The student is certified in the emphasis chosen as well as in general science and interdisciplinary sciences. Further certification is obtained by the completion of additional emphases.

Part A—The Core

Biology	Sem. Hrs.
BIOL 171—Principles of Biology.....	4
BIOL 210—General Zoology	
OR	
BIOL 215—General Botany.....	4

Chemistry	
CHEM 101—Survey of General Chemistry.....	4
CHEM 201—Survey of Organic Chemistry.....	4
OR	
CHEM 111—Principles of Chemistry I.....	4
CHEM 112—Principles of Chemistry II.....	4

Earth Science	
GEOS 100—Physical Geology.....	1
GEOS 107—Introduction to Geoscience.....	3
GEOS 201—Historical Geology	
OR	
GEOS 410—Geological History of Plants and Animals.....	3

Physics	
PHYS 201—Elementary Physics I	
PHYS 201A—Elementary Physics I Lab.....	4-5
OR	
PHYS 231—Engineering Physics I	
PHYS 231A—Engineering Physics I Lab	
PHYS 202—Elementary Physics II	
PHYS 202A—Elementary Physics II Lab.....	4-5
OR	
PHYS 232—Engineering Physics II	
PHYS 232A—Engineering Physics II Lab	

Science	
SCI 592—Science for the Secondary Teacher.....	3

Part B—Choice of Emphasis

Biology (30 sem. hrs.)	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences	1
*BIOL 210—General Zoology	4
OR	
*BIOL 215—General Botany	4
BIOL 304—Genetics	3
BIOL 317—Principles of Microbiology	4
BIOL 380—Cell Biology	3
BIOL 561—Ecology	3
BIOL 525—Animal Physiology	3
OR	
BIOL 513—Plant Physiology	3
**Advanced biology electives	9
Total hours for biology emphasis	30

*Whichever not taken as part of "The Core"

**A minimum of three courses to be selected from the list of courses (core and elective) acceptable for the teaching major in biology (see the teaching major listed below).

Chemistry (15 sem. hrs.)	
CHEM 223—Quantitative Analysis	4
OR	
CHEM 460—Instrumental Analysis	4
CHEM 326—Organic Chemistry I	4
CHEM 327—Organic Chemistry II	4
Elect from the following:	
CHEM 328—Organic Chemistry III	5
CHEM 350—Inorganic Chemistry	3
CHEM 410—Spectral Interpretation in Chemical Analysis	2
CHEM 441—Physical Chemistry I	3
CHEM 450—Qualitative Organic Analysis	4

Earth Science (15 sem. hrs.)	
GEOS 240—Oceans	3
GEOS 250—Minerals and Rocks	3
OR	
GEOL 262—Mineralogy	4
GEOL 276—Geologic Methods	3
Elect from the following:	
GEOS 200—Coal Mining Geology	3
GEOS 300—Petrology	3
GEOS 301—Economic Geology	3
GEOS 315—Stratigraphy and Sedimentation	4
GEOS 325—Structural Geology	3
GEOS 350—Geomorphology	3
GEOS 376—Environmental Geology	3
*GEOS 379—Invertebrate Paleontology	4
*GEOS 410—Geological History of Plants and Animals	3
*Credit is not awarded for both GEOS 379 and GEOS 410.	

Physics (15 sem. hrs.)	
PHYS 350—Nuclear Science	4
Elect from the following:	
PHYS 212—General Physics Problems	2
PHYS 221—Statics	3
PHYS 250—Light, Color, Cameras, and Perception	3
PHYS 320—The Science of Music	3
PHYS 332—Electricity and Magnetism	4
PHYS 340—Experimental Physics	3
PHYS 352—Concepts of Modern Physics	3
PHYS 361—Fundamentals of Electronics	3
PHYS 391—Dynamics	3
PHYS 410—Solid State Physics	3
PHYS 411—Thermodynamics	3
PHYS 452—Nuclear Physics	3
PHYS 481—Mathematical Physics	3
PHYS 493—Quantum Mechanics	3
*PHYS 212 will not apply if student has completed PHYS 231 and PHYS 232.	

Part C—Supplemental Requirements in Mathematics

Students who seek certification with an area of concentration in science will be required to complete the following mathematics requirement:

One course from the following:	Sem. Hrs.
MATH 152—College Algebra	3
MATH 173—Pre-Calculus I	3
MATH 175—Analytic Geometry and Calculus I	3-4
Also one course from the following:	
MATH 141—Plane Trigonometry	3
MATH 174—Pre-Calculus II	3
MATH 275—Analytic Geometry and Calculus II	4
MATH 353—Statistics	3-4
	6-8

Majors (Teaching)

A student can receive certification by completing a Bachelor of Science degree with a major in biology, chemistry, earth science, mathematics, or physics. With the exception of mathematics, certification is no longer granted with a minor in this list of disciplines unless a major in one of the other natural science disciplines is completed. Further certification can also be obtained through the completion of a second major from the list or through other majors or minors as suggested by an advisor. In addition, the student must complete the requirements listed under the Teacher Education Program.

Biology

Core (29 hours)	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences	1
Programs	
BIOL 171—Principles of Biology	4
BIOL 210—General Zoology	4
BIOL 215—General Botany	4
BIOL 304—Genetics	3
BIOL 317—Principles of Microbiology	4
BIOL 380—Cell Biology	3
BIOL 561—Ecology	3
BIOL 513—Animal Physiology	3
OR	
BIOL 513—Plant Physiology	3
Total for biology core	38
Electives (9 hours)	
Advanced biology categories (see below)	9
Total hours for a biology major (teaching)	38

Advanced Biology Categories

Students must select, from the following three categories, 9 hours (minimum of three courses) of advanced electives in biology. The student may select no more than two courses from any one group. Courses selected from advanced biology categories will not be counted as part of the biology core.

Group A

BIOL 319—Immunology and Serology
BIOL 332—Human Physiology
AND
BIOL 333—Laboratory for Human Physiology
BIOL 513—Plant Physiology
BIOL 518—Pathogenic Microbiology
BIOL 519—Virology
BIOL 525—Animal Physiology
BIOL 596—Biochemistry II

Group B

BIOL 337—Comparative Anatomy
 BIOL 338—Developmental Biology
 BIOL 514—Plant Pathology
 BIOL 520—Histology
 BIOL 540—Parasitology
 BIOL 550—Plant Anatomy
 BIOL 555—Plant Morphology

Group C

BIOL 318—Local Flora
 BIOL 334—Entomology
 BIOL 510—Limnology
 BIOL 531—Herpetology
 BIOL 535—Mammalogy
 BIOL 536—Ichthyology
 BIOL 537—Ornithology

Gulf Coast Research Laboratory courses (see listing outlined under "Marine Science").

Note: Biology 574 (Experimental Courses) or BIOL 599 (Selected Workshop Topics)—one course may be used as an elective for Group A, B, or C if it is approved as suitable by the departmental Curriculum Committee.

Supplemental Requirements**Chemistry and geoscience (16 hours)**

Students must select one of the following sequences:

Sequence I (16 hours)

CHEM 111—Principles of Chemistry I4
 CHEM 112—Principles of Chemistry II4
 CHEM 326—Organic Chemistry I4
 CHEM 301—Survey of Biochemistry4
 OR
 BIOL 595—Biochemistry I4

Sequence II (16 hours)

CHEM 101—Survey of General Chemistry4
 CHEM 201—Survey of Organic Chemistry4
 CHEM 301—Survey of Biochemistry4
 GEOS 100—Physical Geology1
 GEOS 201—Historical Geology3

Physics (8 hours)

PHYS 201—Elementary Physics I3
 PHYS 201A—Elementary Physics I Lab1
 PHYS 202—Elementary Physics II3
 PHYS 202A—Elementary Physics II Lab3

Mathematics (6 hours)

MATH 174—Pre-Calculus Mathematics II or equivalent3
 MATH 123—Introduction to Statistics or equivalent3
 Total supplemental hours30

Chemistry

Students who wish to become certified in chemistry must complete a minimum of 32 semester hours including:

	Sem. Hrs.
CHEM 111—Principles of Chemistry I	4
CHEM 112—Principles of Chemistry II	4
CHEM 223—Quantitative Analysis	4
CHEM 326—Organic Chemistry I	4
CHEM 441—Physical Chemistry I	3
SCI 471—Seminar	1
SCI 592—Science for the Secondary Teacher	3
CHEM—electives approved by advisor	9
	32

Students who intend to be certified in chemistry must also complete supplemental courses in other natural sciences. Consult your advisor.

Earth Science

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	3
GEOS 250—Minerals and Rocks	3
OR	
GEOS 262—Mineralogy	4
GEOS 276—Geologic Methods	3
GEOS 410—Geological History of Plants and Animals	3
SCI 200—Descriptive Astronomy	3
SCI 471—Seminar	1
AGR 211—Soils	3
GEO 390—Weather and Climate	3
SCI—Science for the Secondary Teacher	3
GEOS—electives approved by advisor	2-3
	32-33

Students who wish to be certified to teach earth science must also complete supplemental courses in other natural sciences. Consult your advisor.

Physics

	Sem. Hrs.
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1
PHYS 212—General Physics Problems	2
OR	
PHYS 231—Engineering Physics I	4
PHYS 231A—Engineering Physics I Lab	1
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Lab	1
PHYS 352—Concepts of Modern Physics	3
SCI 471—Seminar	1
SCI 592—Science for the Secondary Teacher	3
PHYS—electives approved by advisor	15
	32

Students who seek certification in physics must complete supplemental courses in other natural sciences. Consult your advisor.

Minors (Teaching)

A student can receive a certifiable teaching minor in biology, chemistry, earth science, mathematics, and physics. With the exception of mathematics, the minor must be complemented by a major in a natural science. As stated under Area of Concentration and Teaching Majors above, the student must also complete the requirements of the Teacher Education Program listed elsewhere in this catalog.

Biology

	Sem. Hrs.
Core (12 hours)	
BIOL 171—Principles of Biology	4
BIOL 210—General Zoology	4
BIOL 215—General Botany	4
Core total	12
Electives (minimum of 12 hours)	
Three of the following courses (minimum of 9 hours):	9
BIOL 304—Genetics	
BIOL 317—Microbiology	
BIOL 380—Cell Biology	

BIOL 513—Plant Physiology
 BIOL 525—Animal Physiology
 BIOL 561—Ecology

One additional course (minimum of 3 hours) to be selected from the list of courses (core and electives) accepted for the biology major (teaching)3
 Total hours for a biology teaching minor24

Supplemental Requirements

Chemistry (8 hours)

The student must take one of the following sequences:

Sequence I

CHEM 101—Survey of General Chemistry4
 CHEM 201—Survey of Organic Chemistry4

Sequence II

CHEM 111—Principles of Chemistry I4
 CHEM 112—Principles of Chemistry II4
 Total supplemental hours8

Chemistry

	Sem. Hrs.
CHEM 111—Principles of Chemistry I	4
CHEM 112—Principles of Chemistry II	4
OR	
CHEM 101—Survey of General Chemistry	4
CHEM 201—Survey of Organic Chemistry	4
CHEM—Elective approved by advisor	14
	22

Earth Science

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	3
OR	
GEOS 410—Geological History of Plants and Animals	3
SCI 200—Descriptive Astronomy	3
GEO 390—Weather and Climate	3
GEOS—electives approved by advisor	9
	22

Geology

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	3
GEOS 250—Minerals and Rocks	3
OR	
GEOS 262—Mineralogy	4
GEOS 276—Geologic Methods	3
GEOS 410—Geologic History of Plants and Animals	3
GEOS—electives approved by advisor	6
	22

Physics

	Sem. Hrs.
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1
OR	
PHYS 231—Engineering Physics I	4
PHYS 231A—Engineering Physics I Lab	1
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Lab	1
PHYS—elective approved by advisor	12-14
	22

Course descriptions begin on page 91

Secretarial Studies

(606) 783-2163, 783-2174

306 Combs Building
 School of Business and Economics
 College of Professional Studies

Faculty—R. Bernardi, S. Hunt, S. Luckey, H. Northcutt,
 G. Ousley

Bachelor of Business Administration

Secretarial Studies Option

Students wishing to teach in the secretarial programs or clerical programs on the secondary level should select the secretarial studies option. This curriculum will satisfy certification requirements for teaching typewriting, shorthand, and related secretarial and clerical courses.

General Education Requirements

The following specific courses must be included in the 46 hour general education component (see general education requirements)

	Sem. Hrs.
SPCH 370—Business and Professional Speech	3
MATH 160—Mathematics for Business and Economics	4
MATH 354—Business Statistics	3
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3

Core for Teacher Education Programs

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
FIN 360—Business Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
OADM 136—Business Calculations	3
OADM 321—Business Communications	3
	27

Program Requirements

	Sem. Hrs.
BBA—Teacher education core	27
OADM 112—Intermediate Typing	3
OADM 210—Word Processing I	3
OADM 213—Advanced Typewriting	3
OADM 220—Word Processing II	3
OADM 232—Shorthand II	3
OADM 331—Shorthand III	3
OADM 340—Simulated Office Education	3
OADM 363—Office Management	3
OADM 475—Methods of Teaching Business Subjects	4
	55

Bachelor of Science

Minor

For students who have a major in another discipline and who do not desire teacher certification in business education.

Course Requirements

	Sem. Hrs.
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
OADM—Typewriting	6
OADM—Shorthand	6
OADM 210—Word Processing I	3
	21

Associate of Applied Business

This program is designed to prepare graduates for positions as stenographers or secretaries in business, industry, government, legal, or medical fields.

Course Requirements

	Sem. Hrs.
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3
ENG 102—Composition II	3
OADM 112—Intermediate Typewriting	3
OADM 131—Shorthand I	3
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
OADM 210—Word Processing I	3
OADM 213—Advanced Typewriting	3
OADM 220—Word Processing II	3
OADM 321—Business Communications	3
OADM 340—Simulated Office Education	3
OADM 363—Office Management	3
PDI 100—Personal Development	1
SPCH 370—Business and Professional Speech	3
*Approved electives	21
	64

*Electives may be applied for emphasis in specific areas as follows:

Executive Secretary

DATA 202—Computer Programming BASIC	3
ECON 201—Principles of Economics I	3
OADM 232—Shorthand II	3

Legal Secretary

GOVT 141—American Government	3
GOVT 380—American Courts and Civil Rights	3
MNGT 261—The Legal Environment of Business Organizations	3
OADM 234—Specialized Office Procedures	1-3
OADM 398—Supervised Field Experience	3

Medical Secretary

AHS 302—Medical Terminology	2
OADM 234—Specialized Office Procedures	3
OADM 398—Supervised Field Experience	1-3
PSY 154—Introduction to Psychology	3

Certificate

	Sem. Hrs.
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3

OADM—Typewriting	6
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
OADM 210—Word Processing I	3
OADM—Shorthand	6
OADM 321—Business Communications	3
OADM 340—Simulated Office Education	
OR	
OADM 363—Office Management	3
	33

Course descriptions begin on page 91

Small Business Management

(606) 783-2475
314 Combs Building
School of Business and Economics
College of Professional Studies

Faculty—R. Meadows

Associate of Applied Business

The two-year program in small business management is recommended for students who desire to organize or own a small business firm, as well as those who are presently employed as managers or who desire to become managers. The program is designed to meet the specific needs of small business organizations and to help students acquire the knowledge to fill these needs.

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
ECON 101—Introduction to the American Economy	3
ENG 101—Composition I	3
ENG 102—Composition II	3
FIN 252—Mathematics of Finance	3
MKT 304—Marketing	3
MKT 305—Purchasing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 310—Small Business Organization	3
MNGT 311—Personnel Management	3
OADM 136—Business Calculations	3
OADM 321—Business Communications	3
OADM 363—Office Management	3
SPCH 110—Basic Speech	
OR	
SPCH 370—Business and Professional Speech	3
Approved electives	16
	64

Course descriptions begin on page 91

Social Science

(606) 783-2090
350 Rader Hall
Department of Geography, Government, and History
College of Arts and Sciences

Faculty—D. Flatt

Bachelor of Arts

An area of concentration in the social sciences is recommended for students desiring to teach in the public schools. Preparation shall be distributed among the subjects of United States history, geography, government, economics, and sociology.

Area of Concentration

	Sem. Hrs.
A. A minimum of 18 hrs. in history	18
B. 12 hours each field in any three:.....	36
Economics	
Geography	
Government and Public Affairs	
Sociology	
C. 6 hours in the fourth field	6
ECON 201—Principles I	3
ECON 202—Principles II	3
ECON 350—Microeconomic Theory	3
ECON 351—Macroeconomic Theory	3
GEO 100—Fundamentals	3
GEO 211—Economic Geography	3
GEO 300—World Geography	3
GEO—advanced elective	3
GOVT 141—Government of the U.S.	3
GOVT 242—State and Local Government	3
GOVT 330—Parliamentary Democracies	3
GOVT—advanced elective in international governments	3
HIS 131—Introduction to Civilization I	3
HIS 132—Introduction to Civilization II	3
HIS 141—Introduction to Early American History	3
HIS 143—Introduction to Recent American History	3
HIS—advanced electives (3 hrs. must be American)	3
SOC 101—General Sociology	3
SOC 505—Sociological Theory	3
SOC—advanced electives	6

Course descriptions begin on page 91

Social Work

(606) 783-2656
351 Rader Hall
Department of Sociology, Social Work, and Corrections
College of Professional Studies

Faculty—L. Crosthwaite, T. Marshall, J. Seelig (coordinator), P. Whitson

Bachelor of Social Work

Social work is a human service profession that meets the needs of society in several areas, including gerontology, health care, mental retardation, child welfare, correctional rehabilitation, mental health, income maintenance, and alcoholism/substance abuse. The program is fully accredited by the Council on Social Work Education. Prepares students for entry level professional practice with individuals, marital couples, families, small groups, and entire communities.

	Sem. Hrs.
SWK 210—Orientation to Social Welfare	4
SWK 230—Social Work Values and Policy	3
SWK 322—Human Behavior in the Social Environment	3
SWK 325—Social Work Practice I	3
SWK 425—Social Work Practice II	3
SWK 450—Research Methodology	3
SWK 490—Senior Seminar	1
SWK 510—Practicum in Social Work	8
SWK 525—Social Work Practice III	3
SWK 530—Social Policy and Planning	3
SWK—electives	6
SOC 101—General Sociology	3
SOC 203—Contemporary Social Problems	3
SOC 305—Cultural Anthropology	3
SOC 354—The Individual and Society	3
SOC 374—American Minority Relations	3
SOC 405—Sociological Theory	3
ENG 591 or 592—Technical Writing	3
ECON 101—Introduction to the American Economy	3
GOVT 380—American Courts and Civil Rights	3
GOVT 242—State and Local Government	3
PHIL 200—introduction to Philosophy	3
PSY 154—Introduction to Psychology	3
PSY 590—Abnormal Psychology	3
General education requirements and electives	49
	128

Associate of Applied Arts (Two-Year Program)

	Sem. Hrs.
SWK 210—Orientation to Social Welfare.....	4
SWK 230—Social Work Values and Policy.....	3
SWK 315—Child Welfare Services.....	3
SWK 322—Human Behavior in the Social Environment.....	3
SWK 325—Social Work Practice I.....	3
SOC 101—General Sociology.....	3
SOC 203—Contemporary Social Problems.....	3
SOC 354—The Individual and Society.....	3
ECON 101—Introduction to the American Economy.....	3
ENG 101—Composition I.....	3
ENG 102—Composition II.....	3
OR	
ENG 192—Technical Composition.....	3
PHIL 200—Introduction to Philosophy.....	3
GOVT 242—State and Local Government.....	3
PSY 154—Introduction to Psychology.....	3
HLTH 150—Personal Health.....	2
MATH—elective.....	3
Approved electives.....	14
	65

Course descriptions begin on page 91

Sociology

(606) 783-2090
350 Rader Hall
Department of Sociology, Social Work, and Corrections
College of Professional Studies

Faculty—R. Bylund, L. Crosthwaite, T. Marshall, T. Munson, M. Patton,
E. Reeves, D. Rudy (chair), J. Seeling, A. Wheeler, M. Whitson, P. Whitson

Sociology programs provide students with broad critical and analytical skills that can be applied on the individual, organizational, and societal levels. Combined with other skills and courses, a sociology major can prepare for careers in human service, planning, criminal justice, personnel, public relations, and more.

Sociology majors seeking teacher certification must also present a teaching minor. See "Teacher Education Program" and "Professional Laboratory Experiences" requirements.

Bachelor of Arts

Major

	Sem. Hrs.
SOC 101—General Sociology.....	3
SOC 305—Cultural Anthropology.....	3
SOC 405—Sociological Theory.....	3
SOC 450—Research Methodology.....	3
SOC—electives of which 12 sem. hrs. must be on the 300 level or above.....	18
	30

Emphasis in Corrections

	Sem. Hrs.
SOC 101—General Sociology.....	3
SOC 203—Contemporary Social Problems.....	3
SOC 354—The Individual and Society.....	3
SOC 374—American Minority Relations.....	3
SOC 405—Sociological Theory.....	3
SOC 450—Research Methodology.....	3
COR 201—Sociology of Corrections.....	3
COR 320—Probation and Parole.....	3
COR 420—Seminar in Criminal Behavior.....	6
COR 590—Practicum in Corrections.....	3
COR—elective.....	3
	36

Minor

	Sem. Hrs.
SOC 101—General Sociology.....	3
SOC 203—Contemporary Social Problems.....	3
SOC 405—Sociological Theory.....	3
SOC 450—Research Methodology.....	3
SOC—electives 300 level or above.....	9
	21

Course descriptions begin on page 91

Spanish

(606) 783-2185
103 Combs Building
Department of English, Foreign Languages, and Philosophy
College of Arts and Sciences

Faculty—V. Cano, B. Hamilton, R. Howard

The Spanish curriculum at Morehead State University teaches the language and the literature of the Hispanic world, whereby students will perceive areas of thought and action different from their own. More specifically, it surveys Hispanic civilization through its history, geography, fine arts, and political and social institutions. For students interested in international business, the curriculum offers also the opportunity to acquire a proficiency in Spanish for business and commerce.

Students may receive full credit at Morehead State University for courses taken with the summer study abroad program in Spain through the Kentucky Institute of European Studies (KIES).

The program in Spanish prepares students to enter into the areas of teaching, interpreting, and translating. Further, the study of Spanish aids students seeking employment in areas where knowledge of a second language is beneficial—business and commerce, tourism, social services, and the like.

NOTE: SPA 300 is a prerequisite for all other 300-and-above numbered courses except SPA 305.

Bachelor of Arts

Major

	Sem Hrs.
Basic Language	12
SPA 101—Beginning Spanish I	
SPA 102—Beginning Spanish II	
SPA 201—Intermediate Spanish I	
SPA 202—Intermediate Spanish II	
Advanced Language	3
SPA 300—Grammar and Composition	
Spanish Literature (elect one 300 and one 400 course)	6
SPA 301—Survey of Peninsular Spanish Literature from 1700	
SPA 401—Masterpieces of Spanish Literature	
SPA 302—Survey of Spanish American Literature from Colonial Times to 1880	
SPA 402—Masterpieces of Spanish American Literature	
Approved 300- to 500-level electives*	9
	30

*Teaching majors must choose SPA 405: Linguistics and Language Teaching. SPA 502: Spanish Stylistics is recommended for those students who will take the National Teachers Examination in Spanish.

Minor

	Sem Hrs.
Basic Language	12
SPA 101—Beginning Spanish I	
SPA 102—Beginning Spanish II	
SPA 201—Intermediate Spanish I	
SPA 202—Intermediate Spanish II	
Advanced Language	3
SPA 300—Grammar and Composition	
Approved 300- to 500-level electives*	6
	21

*Teaching minors must include SPA 405: Linguistics and Language Teaching.

Students with high school credit in Spanish may be placed in a course more advanced than 101 to begin their studies.

It is strongly recommended that Spanish be started in the freshman year and that the courses be taken without interruption.

Course descriptions begin on page 91

Special Education

(606) 783-2859
401 Ginger Hall
School of Education
College of Professional Studies

Faculty—D. Edinger, C. Georges, D. Grace, B. Russell

Bachelor of Arts

Learning and Behavior Disorders

This program provides certification for teaching children who have learning disabilities or who are educable mentally handicapped. Certification is available in learning and behavior disorders grades K-12 and elementary grades 1-8 (Kentucky certification).

See "Teacher Education Program" and "Professional Laboratory Experiences" requirements.

Requirements for certification are being changed by the Kentucky State Department of Education. The revised elementary education requirements provide for certification in grades K-4 or 5-8. These changes may result in a change in the elementary grades for which special education teachers receive Kentucky certification.

Area of Concentration

Area and General Education Requirements

	Sem. Hrs.
SPECIAL EDUCATION	33
EDSP 230—Education of Exceptional Children	3
EDSP 320—Introduction to Corrective Speech	3
EDSP 350—Characteristics of Individuals with Mental Retardation and Orthopedic Handicaps	3
EDSP 435—Supervised Teaching Practicum—LBD	6
EDSP 537—Educational Assessments of Exceptional Children	3
EDSP 550—Characteristics of Individuals with Learning Disabilities and Behavior Disorders	3
EDSP 551—Curriculum for Pre-School Exceptional Child	3
EDSP 553—Language Arts for Exceptional Students	3
EDSP 555—Prescriptive Teaching for Children with Learning and Behavior Problems	3
EDSP 557—Content Areas and Career Preparation for Exceptional Students	3
EDUCATION	35
EDF 207—Foundation of Education	3
EDF 211—Human Growth and Development	3
EDEL 228—Literature and Materials for Children	3
EDEL 301—Media Strategies	2
EDEL 321—Teaching of Arithmetic	3
EDEL 322—Teaching Social Studies in the Elementary School	3
EDEL 323—Language Arts for the Elementary School	3
EDEL 336—Foundations of Reading	3
EDEL 337—Reading Strategies for the Elementary Teacher	3
EDEL 425—Supervised Teaching Practicum—Elementary	6
EDUC 582—Discipline and Classroom Management	3
GENERAL EDUCATION	45
ENG 101 or 103	3
ENG 192—Technical Composition	3
ENG 202, 211, or 212	3
SPCH 110 or 370	3
BIOL 331—Human Anatomy	3
SCI 103 or higher	3
MATH 231—Mathematics for the Elementary Teacher I	3
MATH 232—Mathematics for the Elementary Teacher II	3
Elective—Creative Expression	3
HIST 130—A History of Mankind	3
HIST 140—The Progress of American Democracy	3
PSY 154—Introduction to Psychology	3
SOC 101—General Sociology	3
Elective—GOVT 141, 242, 310, GEO 100, 211, 241, or 300	3
Elective PHED activity course	1
HLTH 150—Personal Health	2
RELATED STUDIES	14
ART 121 or 221	3
MUST 100—Rudiments of Music	2
MUSE 221—Music for the Elementary Teacher	2
HLTH 300—Health in the Elementary School	2
PHED 300—Physical Education in the Elementary School	2
SCI 490—Science for the Elementary Teacher	3
ELECTIVES	1

128

The general education, related studies, and elementary education requirements for an area of concentration in trainable mentally handicapped and learning and behavior disorders are identical. The special education component has two courses that are different, and students in the trainable program must also take EDSP 231. Each program requires a separate practicum experience. Students should consider

completing the requirements for both programs since opportunities for employment are enhanced.

Trainable Mentally Handicapped

This program provides teacher certification for teaching children who are moderately or severely mentally handicapped. Certification is available in trainable mentally handicapped grades K-12 and elementary grades 1-8 (Kentucky certification).

The general education, related studies, and elementary education requirements for an area of concentration in trainable mentally handicapped and learning and behavior disorders are identical. The special education component has two courses that are different, and students in the trainable program must also take EDSP 231. Each program requires a separate practicum experience. Students should consider completing the requirements for both programs since opportunities for employment are enhanced.

See "Teacher Education Program" and "Professional Laboratory Experiences" requirements.

Requirements for certification are being changed by the Kentucky State Department of Education. The revised elementary education requirements provide for certification in grades K-4 or 5-8. These changes may result in a change in the elementary grades for which special education teachers receive Kentucky certification.

Area of Concentration

Area and General Education Requirements

	Sem Hrs.
SPECIAL EDUCATION	36
EDSP 230—Education of Exceptional Children	3
EDSP 231—Trainable Mentally Handicapped Field Experience	3
EDSP 320—Introduction to Corrective Speech	3
EDSP 350—Characteristics of Individuals with Mental Retardation and Orthopedic Handicaps	3
EDSP 436—Supervised Teaching Practicum—TMH	6
EDSP 547—The Trainable Mentally Handicapped	3
EDSP 550—Characteristics of Individuals with Learning Disabilities and Behavior Disorders	3
EDSP 551—Curriculum for Pre-School Exceptional Children	3
EDSP 553—Language Arts for Exceptional Students	3
EDSP 556—Teaching the Trainable Mentally Handicapped	3
EDSP 557—Content Areas and Career Preparation for Exceptional Students	3
EDUCATION	35
EDF 207—Foundation of Education	3
EDF 211—Human Growth and Development	3
EDEL 228—Literature and Materials for Children	3
EDEL 301—Media Strategies	2
EDEL 321—Teaching of Arithmetic	3
EDEL 322—Teaching Social Studies in the Elementary School	3
EDEL 323—Language Arts for the Elementary School	3
EDEL 336—Foundations of Reading	3
EDEL 337—Reading Strategies for the Elementary Teacher	3
EDEL 425—Supervised Teaching Practicum—Elementary	6
EDUC 582—Discipline and Classroom Management	3
GENERAL EDUCATION	45
ENG 101 or 103	3
ENG 192—Technical Composition	3
ENG 202, 211, or 212	3
SPCH 110 or 370	3
BIOL 331—Human Anatomy	3
SCI 103 or higher	3

MATH 231—Mathematics for the Elementary Teacher I	3
MATH 232—Mathematics for the Elementary Teacher II	3
Elective—Creative Expression	3
HIST 130—A History of Mankind	3
HIST 140—The Progress of American Democracy	3
PSY 154—Introduction to Psychology	3
SOC 101—General Sociology	3
Elective—GOVT 141, 242, 310, GEO 100, 211, 241, or 300	3
Elective PHED activity course	1
HLTH 150—Personal Health	2
RELATED STUDIES	14
ART 121 or 221	3
MUST 100—Rudiments of Music	2
MUSE 221—Music for the Elementary Teacher	2
HLTH 300—Health in the Elementary School	2
PHED 300—Physical Education in the Elementary School	2
SCI 490—Science for the Elementary Teacher	3
	130

Non-Teaching Major and Minor

The department offers a non-teaching major and minor for students who would like to study special education, but do not desire teacher certification. The major or minor is often taken in connection with majors or minors (for example, recreation or psychology) which prepare individuals to work with adults or children in non-public settings.

Major (Non-Teaching)

	Sem Hrs.
EDSP 230—Education of Exceptional Children	3
EDSP 350—Characteristics of Individuals with Mental Retardation and Orthopedic Handicaps	3
EDSP 550—Characteristics of Individuals with Learning Disabilities and Behavior Disorders	3
EDSP 537—Educational Assessment of Exceptional Children	3
OR	
EDSP 547—The Trainable Mentally Handicapped	3
EDSP 555—Prescriptive Teaching for Children with Learning and Behavior Problems	3
OR	
EDSP 556—Teaching the Trainable Mentally Handicapped	3
EDEL 336—Foundations of Reading	3
EDSP 320—Introduction to Corrective Speech	3
OR	
SPCH 320—Introduction to Corrective Speech	3
PSY 559—Behavior Modification	3
Electives (approved by advisor)	6
Laboratory experiences EDSP 435 or EDSP 436	4
	34

Minor (Non-Teaching)

	Sem. Hrs.
EDSP 230—Education of Exceptional Children	3
EDSP 350—Characteristics of Individuals with Mental Retardation and Orthopedic Handicaps	3
EDSP 550—Characteristics of Individuals with Learning Disabilities and Behavior Disorders	3
EDSP 537—Educational Assessment of Exceptional Children	3
OR	
EDSP 547—The Trainable Mentally Handicapped	3
EDSP 555—Prescriptive Teaching for Children with Learning and Behavior Problems	3
OR	
EDSP 556—Teaching the Trainable Mentally Handicapped	3
EDEL 336—Foundations of Reading	3
PSY 559—Behavior Modification	3
Laboratory Experience EDSP 435 or EDSP 436	4
	25

Course descriptions begin on page 91

Speech

(606) 783-2603, (606) 783-2134 (chair)
109 Breckinridge Hall, (chair)
Department of Communications
College of Arts and Sciences

Faculty—L. Albert, H. Hamm, J. Quisenberry, T. Scott, C. Thomas,
J. Whiting, J. Wilson

Restrictions Applying to All Programs in Communications

A student may credit toward a program of study in the Department of Communications a limited number of hours from any combination of the following courses, each of which is available in the academic areas of journalism, radio-TV, speech, and theatre:

Communications Cooperative Study 139, 239, 339, 439, 539.

Communications Internship 347, 447.

Special Problems 476.

In each communications program, no more than 9 hours in any combination of the courses listed above may be applied toward an area of concentration, a major, or an associate degree. No more than 6 such hours may be applied toward a minor.

Credit hours earned in these courses which exceed the limits above will not apply to program requirements, but may be applied to the minimum requirements for an A.B. or A.A.A. degree.

Bachelor of Arts

Major

	Sem. Hrs.
SPCH 100—Voice and Articulation	3
SPCH 110—Basic Speech	3
SPCH 200—Oral Interpretation	3
SPCH 220—Introduction to Communication Theory	3
SPCH 382—Argumentation and Debate	
OR	
SPCH 383—Group Discussion	3
SPCH 385—Persuasion	3

Teacher education majors have the following additional requirements: SPCH 595 and 15 hours of speech electives, as approved by the advisor, for a total of 36 hours. SPCH 597 is strongly recommended for all majors entering the field of education.

Non-teacher education majors are required 18 hours of speech electives, as approved by the advisor and in addition to the above program requirements, for a total of 36 hours. For those interested in college level teaching SPCH 595, SPCH 597, and THEA 300 are strongly recommended.

Minor

	Sem. Hrs.
SPCH 100—Voice and Articulation	3
SPCH 110—Basic Speech	3
SPCH 200—Oral Interpretation	3
SPCH 382—Argumentation and Debate	
OR	

SPCH 383—Group Discussion	3
*SPCH 595—Administering the Communications Program	3
electives in speech, approved by the advisor	6-9
	21

*Required only for the minors entering the field of education. (SPCH 597 is strongly recommended for all minors entering the field of education.)

Course descriptions begin on page 91

Speech/Theatre

(606) 783-2134 (chair)
109 Breckinridge Hall
Department of Communications
College of Arts and Sciences

Faculty—L. Albert, H. Hamm, W. Layne, T. Lockhart, J. Quisenberry,
T. Scott, C. Thomas, J. Whiting, J. Wilson

Restrictions Applying to All Programs in Communications

A student may credit toward a program of study in the Department of Communications a limited number of hours from any combination of the following courses, each of which is available in the academic areas of journalism, radio-TV, speech, and theatre:

Communications Cooperative Study 139, 239, 339, 439, 539.

Communications Internship 347, 447.

Special Problems 476.

In each communications program, no more than 9 hours in any combination of the courses listed above may be applied toward an area of concentration, a major, or an associate degree. No more than 6 such hours may be applied toward a minor.

Credit hours earned in these courses which exceed the limits above will not apply to program requirements, but may be applied to the minimum requirements for an A.B. or A.A.A. degree.

Bachelor of Arts

Major

	Sem. Hrs.
SPCH 110—Basic Speech	3
SPCH 382—Argumentation and Debate	
OR	
SPCH 383—Group Discussion	3
THEA 100—Fundamentals of the Theatre	3
THEA 200—Introduction to Dramatic Literature	3

Teacher education majors have the following additional requirements: SPCH 100, SPCH 595, THEA 210, THEA 284, and THEA 380. In addition, teacher education majors must complete 9 hours of electives approved by the advisor for a total of a 36 hour major.

Non-teacher education majors will complete 18 hours of electives as approved by the advisor, in addition to the above program requirements.

Course descriptions begin on page 91

Textiles and Clothing

(606) 783-2966
100 Lloyd Cassity Building
Department of Home Economics
College of Applied Sciences and Technology

Faculty—C. Taylor

Bachelor of Science

Major

This curriculum serves to prepare students to enter careers in the retailing or production of apparel and textiles. In addition to the general education requirements, the students take selected courses from home economics, business, and other related fields of study.

Core Requirements

	Sem. Hrs.
HEC 101—Orientation to the Home Economics Profession	1
HEC 200—Family Perspectives	3
HEC 201—Principles of Nutrition	3
HEC 363—Human Resources Management	3
HEC 471—Seminar	1
	11

Program Requirements

HEC 141—Introduction Textiles and Clothing	3
HEC 241—Clothing Production Studio	3
HEC 280—Apparel Analysis	3
HEC 340—Intermediate Textiles	3
HEC 341—Flat Pattern Design	3
OR HEC 545—Clothing Design in Draping	3
HEC 343—Textiles for Interiors	3
HEC 344—Historic Costumes	3
OR	
HEC 480—Historic Textiles	3
HEC 451—Residential Textiles and Furnishings	3
HEC 541—Tailoring Techniques	3
HEC 542—Socio-Psychological Aspects of Clothing and Textiles	3
	30

Supplemental Requirements

CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Lab	1
	4

Course descriptions begin on page 91

Theatre

(606) 783-2167, (606) 783-2134 (chair)
118 Combs Building, 109 Breckinridge Hall (chair)
Department of Communications
College of Arts and Sciences

Faculty—W. Layne, T. Lockhart (director of theatre)

Restrictions Applying to All Programs in Communications

A student may credit toward a program of study in the Department of Communications a limited number of hours from any combination of the following courses, each of which is available in the academic areas of journalism, radio-TV, speech, and theatre:

Communications Cooperative Study 139, 239, 339, 439, 539.

Communications Internship 347, 447.

Special Problems 476.

In each communications program, no more than 9 hours in any combination of the courses listed above may be applied toward an area of concentration, a major, or an associate degree. No more than 6 such hours may be applied toward a minor.

Credit hours earned in these courses which exceed the limits above will not apply to program requirements, but may be applied to the minimum requirements for an A.B. or A.A.A. degree.

Bachelor of Arts

Major (Non-Teaching)

THEA 100—Fundamentals of the Theatre	3
THEA 200—Introduction to Dramatic Literature	3
THEA 210—Technical Production	3
THEA 284—Acting Techniques	3
THEA 315—Stage Make-up	3
THEA 320—Scenographic and Drawing Techniques	3
THEA 322—Scene Design	3
THEA 354—Theatre History	3
THEA 380—Play Directing	3
SPCH 100—Voice and Articulation I	3
Theatre electives	6
	36

Minor (Teaching and Non-Teaching)

	Sem. Hrs.
THEA 100—Fundamentals of the Theatre	3
THEA 200—Introduction to Dramatic Literature	3
THEA 210—Technical Production	3
THEA 284—Acting Technique	3
THEA 320—Scenographic and Drawing Techniques	3
THEA 322—Scene Design	3
THEA 380—Play Directing	3
	21

Course descriptions begin on page 91

University Studies

(606) 783-2140
212 Rader Hall
College of Arts and Sciences

Faculty—J. Philley (dean)

Bachelor of University Studies

Degree Requirements

You do not have to complete a major, minor, or area of concentration for the Bachelor of University Studies degree. You may take a wide variety of subjects or concentrate all studies beyond the general education requirements in a single discipline. For more information, see your advisor or the Dean, College of Arts and Sciences.

You will receive your Bachelor of University Studies degree after you:

1. Complete a minimum of 128 semester hours of prescribed and elective college credit, 43 semester hours of which must be courses numbered 300 or above.
2. Earn a minimum cumulative grade-point average of 2.0 on all work completed at the university.
3. Complete at least 32 semester hours at Morehead State University, with the last 16 hours preceding graduation earned from MSU. Correspondence courses do not satisfy this requirement.

Associate of University Studies

Degree Requirements

Except for the general education requirements, no prescribed program for study is required for this degree. You may take a wide variety of subjects or concentrate all studies beyond the general education requirements in a single discipline. All other associate degree requirements must be met. (See associate degree requirements.) For more information, see your advisor or the Dean, College of Arts and Sciences.

Course descriptions begin on page 91

Veterinary Technology

(606) 783-2326
Derrickson Agricultural Complex, MSU Farm
Department of Agriculture and Natural Resources
College of Applied Sciences and Technology

Faculty—D. Applegate (coordinator), S. Rundell, B. Krakoff, V. Smith

Bachelor of Science (Four-Year Program)

Admission Requirements

1. Acceptance to MSU.
2. Satisfactory completion of the first two years of the Veterinary Technology Program at Morehead State University or equivalent.
3. Minimum college g.p.a. of 2.5 on a 4.0 scale.
4. Personal interview by the veterinary technology acceptance committee.

Required Course Sequence

	Sem. Hrs.
Fifth Semester	14
VET 440—Veterinary Anesthesiology	4
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Laboratory	1
Social science/economics electives	6
Sixth Semester	15
VET 450—Veterinary Clinical Pathology	3
BIO—elective (105 or higher)	3
Elective	3
Social science/economics elective	3
Humanities elective	3
Seventh Semester	12
OADM 363—Office Management	3
ENG 202—Introduction to Literature	3
Social science/economics elective	3
Elective	3
Eighth Semester	13
VET 470—Veterinary Hospital Management	4
VET 490—Seminar	1
Health elective	2
Electives	6

Associate of Applied Science (Two-Year Program)

The MSU Veterinary Technology program is approved by the Kentucky Veterinary Medical Association and accredited by the American Veterinary Medical Association. Graduates are eligible to write the National Board Examination for state licensure as a Registered Veterinary Technician.

Admission Requirements

1. Acceptance to MSU.
2. Acceptance to Veterinary Technology Program is

based on the following requirements

- Application to Veterinary Technology program by March 1 prior to fall semester entry.
- Satisfactory American College Test (ACT) scores with minimum ACT composite score of 15.
- Preference is given to applicants who have completed High School College Preparatory Tract with a 3.0 g.p.a. or college g.p.a. of 2.5 on a 4.0 scale.
- Minimum of 3 months' work experience in animal-related occupations.
- Personal interview by the Veterinary Technology acceptance committee.

Required Course Sequence

	Sem. Hrs.
First Semester	18
VET 102—Intro. to Veterinary Technology	3
VET 106—Animal Science and Breeds Identification	3
VET 105—Anatomy of Domestic Animals	3
VET 107—Laboratory Techniques I	3
ENG 101—English Composition I	3
MATH 135—Math for Technical Students	3
Second Semester	15
VET 215—Clinical Practices	2
VET 208—Laboratory Techniques	3
VET 206—Physiology of Domestic Animals	3
VET 333—Small Animal Diseases and Nutrition	2
VET 220—Clinic Rotation I	1
CHEM 100—Basic Chemistry	3
CHEM 100A—Basic Chemistry Laboratory	1
Summer I	6
VET 350—Laboratory Animal Medicine	2
VET 308—Laboratory Techniques III	3
VET 221—Clinic Rotation II	1
Summer II	6
VET 339—Pharmacology	3
VET 210—Parasitology	2
PHED elective	1
Third Semester	17
VET 315—Clinical Practices II	2
VET 346—Large Animal Diseases and Nutrition	3
ENG 192—Technical Composition	3
SPCH 110—Basic Speech	3
VET 240—Radiology	3
VET 222—Clinic Rotation	3
Fourth Semester	10
VET 360—Preceptorship	12

Course descriptions begin on page 91

Vocational Agriculture Education

(606) 783-2662

332 Reed Hall

Department of Agriculture and Natural Resources
College of Applied Sciences and Technology

Faculty—J. Bendixen, C. Derrickson

Bachelor of Science

Area of Concentration

The student must complete a minimum of 50 semester hours credit in technical agriculture which includes at least 6 semester hours in each of the fields listed below. This area of concentration is designed and approved for students who wish to teach vocational agriculture in the public schools of Kentucky.

Core Requirements

Required courses in technical agriculture	50
AGR Agricultural Economics	6
AGR Agricultural Mechanics	6
AGR Animal Science	6
AGR Horticultural and Plant Science	6
AGR Soil Science	6
AGR—approved agriculture electives	20
Required courses in agriculture education	18
AGR 580—Methods of Teaching Vocational Agriculture	4
AGR 582—Adult and Young Farmer Education	3
AGR 584—Teaching Vocational Agriculture	8
AGR 586—Planning Program in Vocational Agriculture	3

Teacher Certification

Students seeking teacher certification must apply for and be admitted to the teacher education program.

Students must have an overall standing of 2.50 in the area of concentration courses before they will be permitted to take agricultural education courses.

Students must be approved by the agricultural staff and recommended for certification.

Course descriptions begin on page 91

Vocational Trade and Industrial Education

(606) 783-2013

210 Lloyd Cassity Building

Department of Industrial Education and Technology
College of Applied Sciences and Technology

Faculty—J. Van Hoose, R. Tucker

General Education Requirements

The following specific courses must be included in the general education component (see general education requirements):

	Sem. Hrs.
ENG 101—Composition I	3
MATH 135—Mathematics for Technical Students	3
PSY 154 Introduction to Psychology	3
ENG 192—Technical Composition	3
BIO 105—Introduction to Biology	3

Approved math or science elective	2
HLTH 150—Personal Health	2
PE—Approved activity class	1
	20

Core Requirements

IET 390—Principles of Industrial Education	3
IET 392—Technical Curriculum and Media Development	3
IET 393—Methods in Industrial Education	3
IET 364—Career and Vocational Guidance	3
OR	
IET 399—M.O.I. Vocational Education	3
(for in-service vocational teachers only)	
IET 211—Human Growth and Development	3
IET 497—Seminar in Vocational Education	1
OR	
IET 401—Seminar	4
OR	
IET 394—Student Teaching in Industrial Education	20

Options

Students must select one of the following options:

Broadcast technology	24
Construction technology	24
Drafting and design technology	24
Electrical technology	24
Electronics technology	24
Graphic arts technology	24
Industrial Supervision and Management Technology	24
Machine tool technology	24
Power and fluids technology	24
Industrial Education Vocational Technology	24
Welding Technology	24

For Kentucky Vocational Teachers Certification, in addition to specific course requirements, a work experience component which consists of a minimum of 2,000 clock hours of supervised work experience is required in the teachable occupation.

Course descriptions begin on page 91

Welding Technology

(606) 783-2013
210 Lloyd Cassity Building
Department of Industrial Education and Technology
College of Applied Sciences and Technology

Faculty—P. Tyree

General Education Requirements

The following specific courses must be included in the general education component (see general education requirements):

	Sem. Hrs.
MATH 135—Mathematics for Technical Students	3
ENG 101—Composition I	3
DATA 201—Introduction to Computers	3
ENG 192—Technical Composition	3
SPCH 370—Business and Professional Speech	3
	15

Core Requirements

WEL 101—Oxyacetylene Welding	3
WEL 101A—Oxyacetylene Welding	3
GCT 103—Technical Drawing	3
MFT 186—Manufacturing and Fabrication	3
WEL 102—Arc Welding	3
WEL 102A—Arc Welding Laboratory	3
EET 140—Basic Electricity	3
Approved technical elective	2
WEL 201—Inert Gas Welding	3
WEL 201A—Inert Gas Welding Laboratory	3
WEL 205—Welding Metallurgy	3
IET 319—Quality Control	3
IET 317—Time and Motion Study	2
WEL 202—Weld Joint Design and Testing	3
WEL 307—Automated Welding Technology	3
WEL 204—Welding Codes and Blueprint Reading	3
IET 320—Supervisory Practices	3

Course descriptions begin on page 91

Descriptions of Courses

91

NOTE: (3-0-3) following a course title means 3 hours class, no laboratory, 3 hours credit. Roman numerals I, II, and III following the credit hour allowance indicate the term in which the course is normally scheduled: I—fall, II—spring, III—summer.

Accounting

ACCT 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

ACCT 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Periodic workshops on various accounting subjects are designed to supplement the basic course offerings in accounting. Credit toward degree programs must be approved by the student's advisor.

ACCT 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in ACCT 139 or of a nature similar to a sophomore status course.

ACCT 281. Principles of Accounting I. (3-0-3); I, II, III. Meaning and purpose of accounting; the balance sheet, the income statement, books of original entry, special journals, adjusting and closing entries, controlling accounts, notes, interest, inventory, accounts receivable, fixed assets.

ACCT 282. Principles of Accounting II. (3-0-3); I, II, III. *Prerequisite:* ACCT 281. Payroll; corporate accounts, ownership equity, and earnings; financial reporting; manufacturing accounting; funds flow analysis; interpretation of financial statements; managerial analysis.

ACCT 300. Managerial Accounting. (3-0-3); I, II. *Prerequisite:* ACCT 282. Analysis of cost data; manufacturing and cost analysis, budgets, managerial decision-making analysis. Not available for option credit for accounting majors.

ACCT 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

ACCT 384. Intermediate Accounting I. (3-0-3); I, II. *Prerequisite:* ACCT 282. Fundamental accounting procedures, the accounting cycle, the accounting cycle, financial position, measurement of costs, revenues, and expenses, analysis of cash, temporary investments receivables, inventory, investments, plant and equipment, intangibles.

ACCT 385. Intermediate Accounting II. (3-0-3); I, II. *Prerequisite:* ACCT 384. Accounting theory and practice applicable to corporate net worth accounts and liabilities; appropriations and reserves; income determination, funds flow analysis, special problems of analysis, presentation, and interpretation of financial data.

ACCT 386. Internship of Accounting. (1 to 4 hrs.); I, II, III. *Prerequisites:* ACCT 385 and consent of department. On-the-job professional experience in accounting arranged through cooperating public accounting firms, industrial firms, and governmental agencies.

ACCT 387. Income Tax. (3-0-3); I, II. *Prerequisite:* ACCT 282 or consent of instructor. Income tax legislation, federal and state; returns for individuals; gross income; basis for gains and losses; capital gains and losses; dividends; deductions; withholding. Also brief survey of taxation of partnerships, corporations, estates, trusts, and gifts.

ACCT 390. Cost Accounting I. (3-0-3); I, II. *Prerequisite:* ACCT 282. Control and classification of manufacturing costs, job order and process cost analysis; materials, labor, and overhead analysis; joint and by-product costing.

ACCT 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various accounting subjects will be presented periodically. These workshops supplement the basic account-

ing courses. Credit toward degree programs must be approved by the student's advisor.

ACCT 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

ACCT 476. Special Problems in Accounting. (1 to 3 hrs.); I, II, III. *Prerequisite:* senior standing in accounting and permission of department chair. Provides accounting students opportunity to complete independent advanced work in an accounting area of special interest.

ACCT 482. Advanced Accounting. (3-0-3); I. *Prerequisite:* ACCT 385. Accounting for requisitions, consolidations, and mergers; purchasing and pooling methods of business combinations, parent and subsidiary accounting for consolidated balance sheets; income statements; statement of changes in financial position; international operations; partnerships; installment sales; consignments; home office and branch accounting.

ACCT 483. Auditing. (3-0-3); I. *Prerequisite:* ACCT 385. Accounting principles applied to internal control systems; audit working papers; detail audit; internal audit; special and fractional audits; audit reports; tests and procedures used in auditing, ethical responsibilities of CPAs.

ACCT 506. Theory of Accounts. (3-0-3); on demand. *Prerequisite:* ACCT 385. Study of development of accounting theory, application of theory to income measurement valuation and equities, review of current literature in the field of FASB, CASB, SEC, AICPA, and AAA pronouncements affecting theory.

ACCT 528. Governmental Accounting. (3-0-3); II. *Prerequisite:* ACCT 282 or permission of instructor. Study of fund accounting techniques for government accounting terminology and budgeting processes; operations of general revenue and expense, capital project, debt service, trust, intragovernment, special assessment, and enterprise funds analysis of fixed assets and liabilities, and basics of hospital and public school fund accounting.

ACCT 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

ACCT 575. Controllership. (3-0-3); on demand. *Prerequisites:* ACCT 281 and 282 or equivalent. Emphasis on appreciation of the function of the controller in a contemporary business organization. Planning for control, reporting, and interpreting operation results, evaluating new programs, tax administration and other types of required government reporting, economic appraisal of programs, and the protection of assets.

ACCT 584. C.P.A. Problems. (3-0-3); on demand. *Prerequisites:* 20 hrs. of accounting and senior standing. Application of generally accepted accounting principles to CPA examination problems. Covers four sections of exam (practice, theory, auditing, and business law) with emphasis on problems and theory.

ACCT 587. Advanced Tax Accounting. (3-0-3); II. *Prerequisite:* ACCT 387. Federal income tax report preparation with emphasis on partnership and corporation returns; estate and trust taxation; gift tax; special problems in taxation, tax research.

ACCT 590. Cost Accounting II. (3-0-3); on demand. *Prerequisite:* ACCT 390. Cost analysis for planning, evaluation, and control. Standard costs, direct costing, budgets, cost and profit analysis, alternative choice decisions, linear programming, capital budgeting.

ACCT 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various accounting subjects will be presented periodically to supplement the basic course offerings in accounting. Credit toward degree programs must be approved by the student's advisor.

Agriculture

AGR 101. General Agriculture. (1-0-1); I. The importance of agriculture in the community, state, nation, and world.

AGR 108. Elementary Horsemanship (Stockseat). (0-2-1); I, II. Includes riding basics in relation to stockseat, such as leading a horse, bridling and saddling, grooming, mounting, dismounting, stopping, starting, turning the horse, riding at different gaits, horsemanship safety and ring etiquette, plus general overall knowledge of horses.

AGR 109. Elementary Horsemanship (Saddle Seat). (0-2-1); I, II. Includes riding basics in relation to saddle seat, such as leading a horse; checking saddle and bridle; mounting and dismounting, stopping, starting, turning, and backing the horse; riding horses at different gaits; horsemanship safety and ring etiquette; and general overall knowledge of horses.

AGR 110. Elementary Horsemanship (Hunt Seat). (0-2-1); I, II. Includes riding basics in relation to hunt seat, such as leading a horse; checking saddle and bridle; mounting and dismounting, stopping, starting, turning, and backing the horse; riding horses at different gaits; horsemanship safety and ring etiquette; and general overall knowledge of horses.

AGR 118. Intermediate Horsemanship (Stockseat). (0-2-1); I, II. Prerequisite: AGR 108, 109, 110 or consent of instructor. Includes review of elementary horsemanship (stockseat) techniques; handling horses properly from the ground; grooming and tacking-up; more advanced riding skills such as rein and leg aids; correct body position; halts, turns, and figurework; trail riding; and parts of the horse, bridle, and saddle, all in relation to western riding.

AGR 119. Intermediate Horsemanship (Saddle Seat). (0-2-1); I, II. Prerequisite: AGR 109, AGR 110, or consent of instructor. Includes review of elementary horsemanship (saddle seat) techniques; handling horse properly from ground; grooming, tacking-up; more advanced riding skills such as leg aids, rein aids, and canter leads; detailed study of gaits, equipment, and dress; trail riding and showing horses, parts of the horse, bridle, and saddle.

AGR 120. Intermediate Horsemanship (Hunt Seat). (0-2-1); I, II. Prerequisite: AGR 109, AGR 110, or consent of instructor. Intermediate review of elementary horsemanship (hunt seat) techniques; handling horse properly from ground; grooming, tacking-up; more advanced riding skills such as leg aids, rein aids, and canter leads; detailed study of gaits, equipment, and dress; trail riding and showing horses, parts of the horse, bridle, and saddle.

AGR 121. Equitation. (1-4-3); I, II. Grooming, saddling, bridling, mounting, seat and hands. Basic equitation for students with no previous experience.

AGR 133. Farm Livestock Production. (2-2-3); I, Fundamental genetics, nutrition, and physiology of beef and dairy cattle, swine, and sheep.

AGR 180. Elementary Field Crops. (2-2-3); II. Prerequisite: BIOL 150. A study of the fundamentals of crop production, current practices in grain, pasture, forage, and medicinal crop production; seed production and quality; morphology of crops.

AGR 203. Agricultural Economics. (3-0-3); I, II. Economic organization of the farm productive unit; concentration on principles of production economics, supply and demand schedules.

AGR 205. Farm Records. (3-0-3); II. Development and application of farm records necessary for farm business analysis, including a study of types of inventories, depreciation schedules, cost determining, and record keeping.

AGR 207. Land Conservation and Forest Management. (2-2-3); II. Principles of land resource conservation. Special emphasis on land and water conservation by reforestation of areas denuded by strip mining.

AGR 211. Soils. (2-2-3); I. Prerequisite: CHEM 101 and 101A. Study of origin, formation, composition, and classification of soils; the physical, chemical, and biological properties of the soil in relation to plant growth; the principles of soil management, conservation, and land use.

AGR 212. Landscape Plants. (2-2-3); I. A study of ornamental trees, shrubs, and vines commonly used in landscaping. Emphasis is placed on identification, characteristics, adaptability, and maintenance.

AGR 213. Landscape Gardening. (2-2-3); II. Prerequisite: AGR 212. An introduction to landscape gardening with emphasis on design, construction, planting, and maintenance of the home grounds.

AGR 215. Horticulture. (2-2-3); I, II. Prerequisite: BIOL 150. A study of the basic principles underlying horticultural practices in fruit growing, vegetable gardening, landscape gardening, and floriculture.

AGR 216. Floriculture. (1-2-2); on demand. The elementary principles of selection, identification, culture, and use of foliage plants.

AGR 231. Livestock Judging. (1-4-3); II. Prerequisite: AGR 133 or equivalent. A study of the types of purebred and commercial beef cattle, sheep, horses, and swine. Studies will be made on evaluating market, breeding, and performance classes.

AGR 235. Supervised Work Experience. (1 to 6 hrs.); I, II, III. A supervised work experience program for students planning careers in agriculture upon completion of the associate degree program.

AGR 242. Light Horse Husbandry. (2-2-3); I, II. A study of horse care, including first aid, feeding, grooming, stable vices, health requirements, diseases, disease control, and building and fence construction. Students will also gain practical experience by working at the barn.

AGR 245. Horseshoeing. (2-2-3); II. The fundamentals of horseshoeing; the basic use of farrier tools; anatomy and physiology of the foot, pastern, and legs. Trimming feet, fitting and nailing shoes, normal and corrective shoeing.

AGR 251. Introduction to Agriculture Mechanics. (2-2-3); I. Farm shop organization; shop safety; selection, use, and maintenance of hand and power tools and equipment for construction and maintenance in agriculture; practical exercises and projects to develop essential skills.

AGR 301. Farm Management. (3-0-3); I, II. Prerequisite: AGR 203. Farm organization, fitting livestock and cropping programs into a functioning unit, profit maximization and least cost combination of resources for a specified level of production.

AGR 302. Agriculture Finance. (3-0-3); I. A study of farm capital structure and needs. The policy and practices of institutions offering credit to farmers are analyzed.

AGR 303. Land Economics. (3-0-3); II. Prerequisites: AGR 203 and 211. Farm selection and appraisal of land resources; adaptation of land as the basis for farm organization and agricultural production; study of land tenure systems; rights of ownership; recreational possibilities of nonproductive land.

AGR 305. Marketing of Farm Products. (3-0-3); I. Development of geographical specializations, demand and supply schedules of agricultural products, price equilibrium, long and short run cyclical price movements, hedging in futures, demand expansion, increasing operational and pricing efficiency, specific commodity marketing.

AGR 308. Weed Control. (2-2-3); I. Prerequisites: AGR 180, 211, CHEM 112, 112A. Identification and classification of weedy species, methods of reproduction, and growth characteristics. Effects on crop and livestock yield.

AGR 311. Soil Conservation. (2-2-3); I. Prerequisite: AGR 211. Agricultural land resources, capabilities, and uses; extent of erosion, causes of erosion and its effect; the soil and its classification; mapping; aims and principles of soil conservation; economics of soil conservation; conservation practices, including contouring, terracing, strip farming, and sodded waterways.

312. Soil Fertility and Fertilizers. (3-0-3); II. Prerequisite: AGR 211. The source and methods of manufacture of fertilizer materials; profitable use of fertilizers and lime in soil management.

AGR 314. Plant Propagation. (2-2-3); II. Prerequisite: AGR 215 or consent of instructor. A study of the principles and practices of the propagation of horticultural plants. Includes seeding, layering, cutting, division, grafting, and budding; use of root stimulants, types of facilities and equipment required, and other cultural practices.

AGR 315. Fruit Production. (2-2-3); on demand. Prerequisite: AGR 215 or consent of instructor. Tree fruits, nuts, and small fruits; varieties, fruiting sites, soils, pruning, pest control, planting, and commercial marketing.

AGR 316. Feeds and Feeding. (2-2-3); I. Prerequisites: CHEM 201, 201A, and AGR 133. Feeds and formulation of rations; fats, carbohydrates, proteins, and their digestion; the role of minerals, vitamins, and feed additives in nutrition.

AGR 317. Floral Design. (2-2-3); I, II. A beginning course for floral design dealing with basics in arranging fresh, dried, and permanent flowers and foliage.

AGR 320. Principles of Vegetable Production. (2-2-3); on demand. Prerequisite: AGR 215 or consent of instructor. Principles of commercial and home vegetable production and handling. Includes soil; ecological and economic factors which influence production; producing for fresh and processing markets; varieties, pest control, cultural practices, and mechanization.

AGR 321. Greenhouse Production I. (2-2-3); I. Prerequisite: AGR 215 or consent of the instructor. Factors involved in locating, constructing, and equipping a greenhouse. Studies soil, soil fertilization, sterilization, watering, cooling, ventilating and heating systems and other developments in greenhouse mechanization; types of structures, materials, and methods of construction.

AGR 322. Greenhouse Production II. (2-2-3); II. Prerequisite: AGR 215 and 321 or consent of instructor. Continuation of 321 in selection of type of crop; producing, harvesting, storing, and marketing of bedding plants, greenhouse vegetables, cut plants, and potted plants; plant growth and reproduction.

AGR 325. Turf Management. (2-2-3); I. Prerequisite: BIOL 150 and AGR 215 or consent of instructor. Turf grass varieties, basic principles of production and their practical application to establishment, maintenance, renovation, and pest control on lawns, playgrounds, and similar turf areas.

AGR 326. Nursery Management. (2-2-3); II. Prerequisite: AGR 215, 314, or consent of instructor. Selection, systems of culture, harvesting and management of ornamental trees, shrubs, and vines.

AGR 327. Advanced Landscape Design. (2-2-3); II. Prerequisite: AGR 212, 213, or consent of instructor. Selection and location of ornamental plants for large properties such as schools, playgrounds, estates, apartment complexes, and factories. Preparing specifications and bids.

AGR 330. Livestock Improvement. (2-2-3); II. Prerequisite: AGR 133. Study of the principles, practices, and procedures of animal breeding, selection and mating systems and their application for farm livestock production and improvement.

AGR 331. Advanced Livestock Judging. (2-2-3); II. Prerequisite: AGR 231. Continuation of AGR 231. Primarily for judging team candidates.

AGR 332. Advanced Horsemanship. (1-4-3); I, II. Prerequisite: AGR 121 or equivalent. The skills of performance equitation. Specific skills needed in training of horses. Emphasis will be on the horseman's role in extracting performance.

AGR 335. Equitation Teaching. (2-2-3); II. Prerequisite: AGR 332. The techniques of horsemanship and methods of equitation instruction.

AGR 336. Dairy Production. (2-2-3); on demand. Prerequisites: AGR 133, and AGR 316. A general study of the factors involved in the management of a dairy cow herd, including herd operation, records, breeding programs, diseases and principles of nutrition.

AGR 337. Poultry Production. (2-2-3); on demand. Prerequisites: AGR 133 and AGR 316 or consent of instructor. Principles of poultry production including common breeds of chickens,

incubation, breeding, housing, nutrition, diseases, and general management practices.

AGR 341. Apiculture. (2-2-3); on demand. Establishing and managing honeybee colonies, prevention and control of pests, and handling the honey crop.

AGR 342. Horse Production. (2-2-3); I. Prerequisite: AGR 242. A general study of the anatomy and physiology of the horse, the relationship of form to function, horse selection, horse breeding, feeding, and genetics.

AGR 343. Beef Production. (2-2-3); II. Prerequisites: AGR 133 and 316 or approval of the department. The history, development, and distribution of breeds; sources of cattle and carcass beef; production and distribution practices in steer feeding; commercial and purebred breeding herds.

AGR 344. Swine Production. (2-2-3); I. Prerequisites: AGR 133 and 316 or approval of the department. History, development, and distribution of types of breeds; management practices, including disease problems in commercial and purebred herds.

AGR 345. Sheep Production. (2-2-3); on demand. Prerequisites: AGR 133 and 316 or approval of the department. History, development, and distribution of types and breeds; selection, breeding, feeding, and management of sheep; production and handling of wool.

AGR 350. Farm Power and Machinery Management. (2-2-3); I. Selection, operation, maintenance, and servicing of agriculture power and machinery units.

AGR 384. Forage Crops. (2-2-3); II. Prerequisites: AGR 180 and 211. The distribution of various forage crops and their adaptations to soil and climate; seeding rates and mixtures; productivity; and pest control.

AGR 385. Agribusiness Management. (3-0-3); II even years or on demand. Prerequisite: AGR 203. Management of the agribusiness functions, responsibilities, and operational characteristics unique to an agriculturally related business, particularly cooperatives.

AGR 386. Introductory Agricultural Policy. (3-0-3); II in odd years or on demand. A history of agricultural policy and policy making; defining the problems and their settings, government participation in supply and demand for agricultural products.

AGR 471. Seminar. (1-0-1); I, II. Prerequisite: second semester junior standing. Identification of problems and issues reflected in the current professional agricultural literature.

AGR 476. Special Problems. (1 to 3 hrs.); I, II, III. Prerequisite: upper division standing. Permits a student to do advanced work as a continuation of an earlier experience or to work in an area of special interest. Topic for investigation must be selected and approved by advisor prior to registration.

AGR 480. Equine Breeding and Reproduction. (1-4-3); II. Prerequisites: AGR 342 and AGR 332 or equivalent. A thorough study of the anatomy and physiology of reproduction in the stallion and the mare with practical emphasis on teasing, breeding, and foaling techniques, semen collection, insemination, and evaluation, along with daily recordkeeping.

AGR 505. Farm Business Analysis. (2-2-3); on demand. Prerequisite: consent of instructor. A basic course in the applicability of farm records to the efficiency analysis of whole farms and of specific enterprises. Actual university farm enterprises will be used to provide the data source for laboratory work.

AGR 512. Conservation Workshop. (2-2-3); on demand. Prerequisite: consent of instructor. Development of the conservation movement with broad treatment of the basic natural resources, including land, water, air, minerals, forests, and wildlife.

AGR 515. Animal Nutrition. (2-2-3); II. Prerequisite: AGR 316. Chemistry, metabolism, and physiological functions of nutrients; digestibility, nutritional balances, and measures of food energy.

AGR 580. Methods of Teaching Vocational Agriculture. (4-0-4); II. The principles of methods applied to teaching voca-

tional agriculture to high school students. Course organization, farming programs, and Future Farmers of America activities.

AGR 582. Adult and Young Farmer Education. (3-0-3); II. The principles and techniques method in organizing and program planning in post high school vocational agriculture and conducting young farmer and adult farmer classes.

AGR 584. Teaching Vocational Agriculture. (8-0-8); II. Supervised teaching in centers selected by the state agriculture education staff and members of the teaching staff. Teacher experiences with in-school and out-of-school groups.

AGR 585. Teaching Agricultural Mechanics. (3-0-3); I. Objectives and methods, equipment and management of the shop, organization of facilities for high school and vocational technical programs.

AGR 586. Planning Programs in Vocational Agriculture. (3-0-3); II. Organization and analysis of the program of vocational agriculture. Departmental program of activities, summer programs, advisory committees, and Future Farmers of America activities.

AGR 588. Curriculum Development and Content Selections. (3-0-3); III. Each student prepares the content for a four-year program in vocational agriculture.

AGR 592. Supervision in Agriculture. (3-0-3); I, II. The principles and techniques needed in individual group supervision of vocational agricultural programs.

Allied Health Sciences

AHS 100. Orientation to Allied Health. (1-0-1); I, II. A review of the history of the health occupations, the ethics of health care, and professional conduct. The various health careers will be identified, their functions described, and the way in which they articulate into the health care team is studied.

AHS 202. Basic Pharmacology. (2-0-2); I, II. This course is to assist the student in the health field to understand responsibility in the administration of medicine and to appreciate the need for accuracy. Basic information concerning the main effects, uses, and doses of the common drugs, including weights, measurements, and abbreviations commonly used in medicine. Review of mathematics related to calculating and translation of dosage.

AHS 301. Seminar. (1 to 3 hrs.); II. Lecture and discussion of problems related to major area and/or health field. Readings in current literature.

AHS 302. Medical Terminology. (2-0-2); I, II. A word-study course of medical terminology. The vocabulary will be taught from a word aspect; a knowledge of medicine or related disciplines is not necessary.

AHS 303. Interpersonal Relations. (3-0-3); I, II. The personality formation of oneself and the "other person." Verbal and non-verbal communications; life forces; coping patterns and values, attitudes, and beliefs are examined. Visual methods and therapeutic methods of communicating with individuals and groups. Some prevalent barriers to communication are discussed. Emphasis is on the health worker's preparation for communication with patients and clients.

AHS 304. Medical Law and Ethics. (2-0-2); II. Designed to acquaint the student with the basic principles of medical law as they apply to the medical assistant, especially considering the basic legal and ethical relationships between the physician, medical assistant, and patient. Coverage includes: contract creation and termination, including implied and informed consent, professional liability, invasion of privacy, malpractice tort liability, breach of contract, and medical practice acts. Emphasis given to professional attitudes and behavior, history of medicine, and different types of medical practice.

AHS 351. Practicum. (1 to 3 hrs.); on demand. Corequisite: to be correlated with a course in major area in Department of Allied Health Sciences. Supervised clinical learning experience in an

appropriate agency or facilities through which the students acquire understanding and skill in their major or area of concentration. The student learns to deal with the patient's physical, mental, and social problems; accept responsibility as a participating team member; learns to work with other professional and non-professional personnel.

AHS 398. Supervised Field Experience. (1 to 6 hrs.); on demand. Prerequisite: consent of advisor. Designed to provide experience in occupational area as student works under supervision in an approved position. Credit commensurates with time worked, type of work, variety of work experiences, periodic evaluation by major department, faculty, and cooperating organization.

Art

ART 101. Two-Dimensional Foundation. (2-2-3); I, II, III. An introduction to drawing and design concepts including shape, line, value, perspective, and composition. A variety of basic drawing materials are used. Theory, skill, and perceptual development are emphasized.

ART 102. Three Dimensional Foundation. (2-2-3); I, II, III. An introduction to three dimensional design, special theory, and concepts are taught employing a variety of methods and materials such as paper, wire, styrofoam, and plaster

ART 103. Color Foundation. (2-2-3); I, II, III. The study of color and its application to color and light, pigment blending, and process printing through lecture and class projects.

ART 121. School Art I. (3-0-3); I, II, III. Introduction to art and to the teaching of art in the lower (1-3) elementary grades.

ART 204. Drawing I. (2-2-3); I, II, III. Introduction to objective and subjective drawing using various graphic media.

ART 205. Graphic Design I (2-2-3); I, II. Prerequisite: ART 101 and 103. Introduction to lettering principles and their application. Rough and comprehensive layout in black and white and color, with emphasis on design.

ART 214. Painting Techniques I. (2-2-3); Prerequisites: ART 101, 102, and 103 or permission of department. Introduction to oil painting, materials and methods, arrangement of the palette; and the use of a variety of different subjects.

ART 221. School Art II. (3-0-3); I, II, III. Philosophy and methods of teaching art to children in the elementary grades; a study of materials, media, and tools.

ART 245. Ceramics I. (2-2-3); I, II, III. Introduction to ceramic forms in hand building, wheel-throwing, glazing, and decorative techniques.

ART 263. Introduction to Ancient Art. (3-0-3); I. The history of Western painting, sculpture, and architecture from the prehistoric times until the beginning of the Christian era.

ART 264. Introduction to Medieval and Renaissance Art. (3-0-3); II. The history of Western painting, sculpture, and architecture from the beginning of the Christian era until about 1600.

ART 283. Basic Black and White Photography (2-2-3); I, II. Practical introduction to the basic camera and darkroom techniques of black and white photography. Areas covered include camera operation, film exposure and development, enlarging, and print presentation.

ART 294. Sculpture I. (2-2-3); I, II. Creative experiences in the techniques, media, and tools of sculpture, work in stone, wood, metal, clay, and plaster.

ART 300. Elementary Materials and Methods. (3-0-3); II. Prerequisite: acceptance into the teacher education program. Background and philosophy of elementary art in education.

ART 304. Drawing II. (2-2-3); I, II. Prerequisite: ART 204. A continuation of ART 204.

ART 305. Graphic Design II. (2-2-3); I, II. Prerequisite: ART 205. A study of three-dimensional design with emphasis on product and package design.

ART 314. Painting Techniques II. (2-2-3); I, II, III. Prerequisite: ART 214. Painting from still life and landscape with emphasis on creative interpretation and expression.

ART 321. Materials and Methods for Secondary Art. (3-0-3); I. Prerequisite: acceptance into teacher education program. Presentation of the background, philosophy, and techniques for the teaching of art in the secondary school.

ART 341. Fibers I. (2-2-3); I, II. Introduction to fiber processes, including spinning and dyeing, coiling, twining, wrapping, tapestry, and loom weaving.

ART 342. Surface Design for Fabric I. (2-2-3); I, II. An introduction to surface design including stamping, tiling, repeat design, and screen printing on fabric.

ART 345. Ceramics II. (2-2-3); I, II, III. Prerequisite: ART 245. Individual work in wheel-throwing, hand building, operation of kilns, and basic experiments in glazing.

ART 351. Intaglio Printmaking. (2-2-3); I, II. Prerequisite: ART 101 or permission of the department. Creative experiments in intaglio printmaking on stone. Techniques include line etching, aquatint, soft ground, dry point, and monotype on zinc and copper.

ART 352. Lithographic Printmaking. (2-2-3); I, II. Prerequisite: ART 101 or permission of the department. Creative experiments in the techniques of lithographic printmaking on stone. Processes include crayon, rubbing ink, liquid tusche, acid tint, and transfer.

ART 361. Ancient Art. (3-0-3); I. The history of Western painting, sculpture, and architecture from prehistoric times until the beginning of the Christian era.

ART 362. Medieval Art. (3-0-3); II (alternate years). The history of European painting, sculpture, and architecture from the beginning of the Christian era until c. 1300.

ART 363. Renaissance Art. (3-0-3); I (alternate years). The history of European painting, sculpture, and architecture from c. 1300 until c. 1525.

ART 364. Mannerist and Baroque Art. (3-0-3); II (alternate years). The history of European painting, sculpture, and architecture from c. 1525 until c. 1750.

ART 383. High Contrast Photography (2-2-3); I, II. Prerequisite: ART 282. Creative use of a variety of darkroom techniques utilizing high contrast films and papers. Techniques covered include drop-out, bas-relief, and tone-line printing; solarization; stripping, and paste-up.

ART 384. Color Photography. (2-2-3); I, II. Prerequisite: ART 283. Introduction to materials and processes utilizing color films and papers.

ART 385. Alternative Photographic Printing Processes. (2-2-3); I, II. Prerequisite: ART 283. Preparation and use of hand-coated photo-sensitive papers. Printing processes include cyanotype, Van Dyke, kallitype, platinotype, palladium, and gum-biochromate.

ART 386. Studio Photography. (2-2-3); I, II. Prerequisite: ART 283 or permission of instructor. Study of studio photography, including use of view camera, artificial lighting, and other studio equipment, as an element of commercial design.

ART 394. Sculpture II. (2-2-3); I, II. Prerequisite: ART 294. Studio problems involving the manipulation of various sculpture media.

ART 400. Apprenticeship. (3 to 16 credits); I, II, III. Prerequisite: Departmental approval upon satisfactory completion of application procedure. Experience in a working situation, allowing the student access to instruction and practical experiences not normally available in the Art Department curriculum.

ART 404. Drawing III. (2-2-3) I, II. Prerequisite: ART 304. A serious search into the expressive possibilities of the figure; anatomical investigation of parts, variety of media and techniques leading to individual interpretation.

ART 405. Graphic Design III (2-2-3); I, II. Prerequisite: ART 305. Introduction to the use of graphics as a means of visual communication with emphasis on design concepts. Studio

assignments on problems related to the community, society, industry, and commerce.

ART 406. Graphic Design IV. (2-2-3); I, II. Prerequisite: ART 405. Advanced work in advertising design with emphasis placed on the commercial application of design principles as they relate to the organization of copy and illustration for use by media.

ART 407. Commercial Illustration I. (2-2-3); I, II. Prerequisite: ART 406. Two- and three-dimensional forms and the various techniques for rendering them for use in commercial design. Emphasis is placed on realistic drawing and presentation of objects.

ART 408. Commercial Illustration II. (3 to 6 hrs); I, II. May be repeated. Prerequisite: ART 407. The continuation of studies in the area of commercial illustration. A more comprehensive study of different media and illustration techniques.

ART 414. Painting Techniques III. (2-2-3); I, II, III. Further exploration of different mediums and direction towards an individual approach. Painting from a variety of subjects; technical investigation and creative interpretation emphasized.

ART 445. Ceramics III. (2-2-3), I, II. Prerequisite: ART 345. An in-depth study of more advanced forms, surface treatment theory of kiln firing and glaze calculation.

ART 451. Intaglio Printmaking Studio. (2-2-3); I, II. May be repeated. Prerequisite: ART 351. Advanced studio in intaglio printmaking. Techniques include engraving, mezzotint, color intaglio, photo-etching and color monotype.

ART 452. Lithographic Printmaking Studio. (2-2-3); I, II. May be repeated. Prerequisite: ART 352. Advanced studio in lithographic printmaking. Techniques include color lithography, reversal, chine colle, and multi-plate registration.

ART 461. Modern Art. (3-0-3); I (alternate years). The history of European and American art painting, sculpture, and architecture from c. 1750 until c. 1900.

ART 462. Contemporary Art. (3-0-3); II (alternate years). The painting, sculpture, and architecture of the twentieth century.

ART 463. Art of the United States. (3-0-3); I (alternate years). A survey of the social, political, and cultural movements which affected the course of American artistic development.

ART 464. Spanish, Portuguese and Latin American Art. (3-0-3); II (alternate years). A survey of the painting, sculpture, and architecture of Spain, Portugal, and Latin America.

ART 504. Drawing IV. (2-2-3); I, II. Repeatable up to 6 hours. Prerequisite: ART 404. Advanced studio in figure drawing. Further exploration of figure drawing concepts and media with emphasis on creative interpretation and expression.

ART 514. Painting Techniques IV. (2-2-3); I, II, III. Experiences leading toward individual achievements in styles and techniques.

ART 555. Advanced Art Problems. (1 to 6 hrs.); I, II, III. Prerequisite: permission of the department required. A studio course involving research in an art area of the student's choice.

ART 594. Sculpture III. (2-2-3); I, II. Prerequisites: ART 294 and 394. Advanced problems in sculpture involving a combination of materials and their uniqueness as media.

Biology

BIOL 100. Orientation to Biological and Environmental Sciences Programs. (1-0-1); I. Prerequisite: enrollment or interest in programs in the Department of Biological and Environmental Sciences. The importance of the academic advisor, the structure of departmental programs, student career-oriented organizations, career selection, program requirements, and applications to professional/graduate schools. Required of all departmental majors, K credit.

BIOL 105. Introduction to Biological Sciences. (3-0-3); I, II, III. Fundamental life processes: photosynthesis, respiration, reproduction, growth, and evolution. Emphasis on man. NOT acceptable for biology majors and minors.

BIOL 150. Introductory Plant Science. (2-2-3); I. Structure, growth, reproduction, and ecology of plants. Emphasis on cultivated plants and agriculture applications. (NOT ACCEPTABLE for biology majors and minors.)

BIOL 171. Principles of Biology. (3-2-4); I,II. General biological principles, emphasis on cell structure and function, energetics, homeostasis, genetics, evolution, and ecology.

BIOL 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Prerequisites: variable. Workshops in various biological and environmental subjects presented periodically, based on need. Usually hands-on, experimental, and/or innovative, these workshops supplement various programs in the biological and environmental sciences or other disciplines. Individual credit towards degree programs must be approved by the student's advisor.

BIOL 206. Biological Etymology. (2-0-2); I, II. Root-concepts of terms necessary for a better understanding of the biological sciences.

BIOL 207. Biological Illustration. (3-0-3); II. Techniques of representation with pen and ink, blackboard, and photography; illustrative procedure for classroom and publication.

BIOL 210. General Zoology. (2-4-4); I, II. Prerequisites: BIOL 171. A survey of animals from Protozoa to Mammalia with emphasis on phylogeny, evolution, comparative morphology, and physiology.

BIOL 215. General Botany. (2-4-4); II, III. Prerequisite: BIOL 171. Structure and physiology of vegetative and reproductive plant organs; introduction to plant genetics and plant kingdom in terms of structure, ecology, and evolution.

BIOL 217. Elementary Medical Microbiology. (3-2-4); II, III. An elementary microbiology course for students interested in understanding the characteristics and activities of microorganisms and their relationship to health and disease. NOT ACCEPTABLE as credit for biology majors and minors.

BIOL 301. Survey of Biochemistry. (3-0-3); I in alternate years. Prerequisite: CHEM 201. Chemistry of simple and complex biomolecules such as amino acids, proteins, carbohydrates, lipids, and nucleic acids. Biosynthesis and metabolic cycles; gene composition (DNA, RNA, etc.). Primarily for students in applied sciences and not for majors or minors in chemistry or biology. See CHEM 301.

BIOL 301A. Survey of Biochemistry Laboratory. (0-2-1); I in alternate years. Corequisite: BIOL 301. Laboratory for BIOL 301. See CHEM 301A.

BIOL 304. Genetics. (2-2-3); I, II. Prerequisite: BIOL 171. Mendelism, chromosomes and heredity, gene theory, cytological and physiological analyses, and population genetics.

BIOL 313. Economic Botany. (3 hours credit). Wood products, plant fibers, latex products, pectins, gums, resin, tannins, dyes, essential oils, medicinals, insecticides, tobacco, oils, fats, waxes, food and beverage plants. Three lecture-discussion-demonstration hours per week. (Correspondence only.)

BIOL 317. Principles of Microbiology. (2-4-4); I, II, III. Prerequisites: BIOL 171 and CHEM 112-112-A. Fundamental and applied aspects of microbiology. Morphology, metabolism, genetics, taxonomy, and immunology emphasized. Medical and environmental microbiology laboratory techniques stressed.

BIOL 318. Local Flora. (1-4-3); I. Prerequisite: BIOL 215. Identification and classification of plants native to the area. Collection and herbarium techniques.

BIOL 319. Immunology and Serology. (2-2-3); II. Prerequisite: BIOL 317. Lecture material provides a basic, yet thorough, understanding of immunological and serological principles. The laboratory enhances student abilities in serological techniques.

BIOL 320. Basic Microtechniques. (0-4-2); on demand. Prerequisites: BIOL 171 and CHEM 111-111-A. Techniques for preparing plant and animal tissues for microscopic study; preparation of microscopic slides.

BIOL 331. Human Anatomy. (3-0-3); I, II, III. Prerequisite: BIOL 105 or equivalent or consent of instructor. Human organism with emphasis on gross morphology. NOT ACCEPTABLE as credit for biology majors.

BIOL 332. Human Physiology. (3-0-3); I, II, III. Prerequisite: BIOL 331 or equivalent. Physiology of the various systems of the human body as particularly related to health. NOT ACCEPTABLE as credit for biology majors.

BIOL 333. Laboratory for Human Physiology. (0-2-1); I, II, III. Prerequisites: BIOL 332 or equivalent (may be taken concurrently). Fundamental physiological principles with an emphasis on laboratory technique, equipment usage, and clinical applications. NOT ACCEPTABLE as credit for biology majors and minors.

BIOL 334. Entomology. (2-2-3); II. Prerequisite: BIOL 210. General structure of insects, life histories, common orders and families; insects in relation to man.

BIOL 336. Pathophysiology. (4-0-4); II. Prerequisites: BIOL 217, 332, and CHEM 201-201A or equivalents. Dynamic aspects of disease and disruption of normal physiology. Correlates anatomy, physiology, and biochemistry and their application to clinical practice for Allied Health students.

BIOL 337. Comparative Anatomy. (2-2-3); II. Prerequisite: BIOL 210. Vertebrate morphology, especially from an evolutionary perspective. Functional aspects and evolutionary trends among the vertebrate classes are emphasized.

BIOL 338. Developmental Biology. (2-2-3); I. Prerequisite: BIOL 210. Vertebrate development from gamete formation through the fetal stage; emphasis on comparative structural development.

BIOL 350. Heredity and Society. (3-0-3); on demand. Prerequisite: BIOL 105 or equivalent. Evolutionary processes and intricacies of genetic transmission. Evolution in human thought, experience, and affairs.

BIOL 355. Population, Resources, and Environment. (3-0-3); I, II, III. Human ecology with special emphasis on the relationships between man, his resources, and his environment.

BIOL 356. Environmental Biology. (3-0-3); II, III. Prerequisite: BIOL 355 or consent of instructor. Basic ecological principles, population and community ecology as they apply to current environmental problems. BIOL 357 is a companion course, although either may be taken separately.

BIOL 357. Environmental Testing Methods. (1-4-3); II. Prerequisite: consent of instructor. Methods used in determining water quality and air and noise pollution levels. Techniques of animal and plant population estimation. BIOL 356 is a companion course, although either may be taken separately.

BIOL 380. Cell Biology. (2-2-3); I, II. Prerequisites: BIOL 171 and CHEM 201 or 326, plus eight additional hours of biology. Integration of biological, chemical, and physical aspects of the cell. Emphasis on molecular processes.

BIOL 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Prerequisites: variable. Workshops in various biological and environmental subjects presented periodically, based on need. Usually hands-on, experimental, and/or innovative, these workshops supplement various programs in the biological and environmental sciences or other disciplines. Individual credit towards degree programs must be approved by the student's advisor.

BIOL 413. Medical Technology Clinical Practicum. (4); III. See Medical Technology Curriculum.

BIOL 414. Medical Technology Clinical Practicum. (4); III. See Medical Technology Curriculum.

BIOL 415. Medical Technology Clinical Practicum. (14); I. See Medical Technology Curriculum.

BIOL 416. Medical Technology Clinical Practicum. (14); II. See Medical Technology Curriculum.

BIOL 471. Seminar in Biological Science. (1-0-1); I, II. Prerequisite: senior standing. Introduction to research and literature in the biological sciences.

BIOL 472. Seminar in Environmental Science. (1-0-1); I, II. **Prerequisite:** senior standing. Introduction to research and literature in the environmental sciences.

BIOL 476. Special Problems. (1 to 6 hrs.); I, II, III. Independent topics and research in the biological and environmental sciences. Topic must be approved prior to registration.

BIOL 510. Limnology. (2-2-3); I. **Prerequisites:** BIOL 210, BIOL 215, MATH 152 or higher, eight hours of college chemistry. Ecology and Biota of inland waters. Some all-day field trips required.

BIOL 513. Plant Physiology. (2-2-3); on demand. **Prerequisites:** BIOL 215 and CHEM 112 and 112-A or equivalent. Diffusion, osmosis, cell wall and membrane structure, mineral nutrition, photosynthesis, respiration, macro-molecules, photoperiodism, and other aspects of plant growth and development.

BIOL 514. Plant Pathology. (1-4-3); on demand. **Prerequisite:** BIOL 215. Plant diseases; classification of fungi; diseases caused by rusts, smuts, fleshy fungi, bacteria, and viruses; physiogenic diseases; principles and procedures in the control of plant diseases; resistant varieties and culture control.

BIOL 515. Food Microbiology. (1-4-3); on demand. **Prerequisite:** BIOL 217 or 317. Microbiology of food production, food spoilage, and food-borne diseases.

BIOL 518. Pathogenic Microbiology. (2-2-3); I. **Prerequisite:** BIOL 217 or 317. Medically important microorganisms; bacteria and fungi emphasized. The isolation, cultivation, and identification of pathogenic microorganisms from clinical specimens stressed. Antimicrobial susceptibility tests, serological methods, and quality control introduced.

BIOL 519. Virology. (2-2-3); on demand. **Prerequisite:** BIOL 317 or consent of instructor. Morphology and chemistry of the virus particle; symptoms, identification, and control of more common virus diseases of plants and animals; host-virus relationships; and research methods concerned with viruses.

BIOL 520. Histology. (2-2-3); I. **Prerequisite:** BIOL 210, CHEM 201 or 326, plus eight additional hours of biology. Characteristics of tissues and organs of vertebrates.

BIOL 525. Animal Physiology. (2-2-3); I. **Prerequisite:** BIOL 210, CHEM 201 or 326, plus eight additional hours of biology. Comparison of fundamental physiological processes in representative invertebrate and vertebrate animals. Emphasis placed on comparative energetics and physiological adaptations of organisms to their environment.

BIOL 530. Ichthyology. (1-4-3); II in even years. **Prerequisite:** BIOL 210. The anatomy, physiology, taxonomy, ecology, distribution, natural history, and evolution of fish. Emphasis on collection, identification, and classification of those fresh water fish native to eastern North America. Common marine fish of the Atlantic and Gulf coasts. Field trips required.

BIOL 531. Herpetology. (1-4-3); II in odd years. **Prerequisite:** BIOL 210. The anatomy, physiology, taxonomy, ecology, distribution, natural history, and evolution of amphibians and reptiles. Emphasis on collection, identification, and classification of those herptiles found in eastern North America. Field trips required.

BIOL 535. Mammalogy. (1-4-3); I. **Prerequisite:** BIOL 210. Mammals of eastern North America with emphasis on mammals of southeastern North America. Taxonomy, adaptation, natural history, and methods of skin preparation. Field trips required.

BIOL 537. Ornithology. (1-4-3); II. **Prerequisite:** BIOL 210. Anatomy, physiology, classification, and identification of birds; life histories, habits, migration, and economic importance of native species. Field trips required.

BIOL 540. General Parasitology. (2-2-3); I. **Prerequisite:** BIOL 210. Protozoan, helminth, and arthropod parasites of man and domestic animals; emphasis on etiology, epidemiology, diagnosis, control, and general life histories of parasites.

BIOL 545. Medical Entomology. (2-2-3); on demand. **Prerequisite:** BIOL 334 or consent of instructor. Arthropod vectors of diseases; special emphasis on insects of medical importance. Anatomy, physiology, identification, ecology, and control measures.

BIOL 550. Plant Anatomy. (2-2-3); I. **Prerequisite:** BIOL 215. Gross and microscopic studies of internal and external structures of vascular plants. The cell, meristem, cambium, primary body, xylem and phloem; roots, stems, and leaves; flowers and fruits; ecological anatomy.

BIOL 551. Plant Natural History. (3-0-3); on demand. **Prerequisite:** BIOL 105 or equivalent. A survey of major taxonomic groups; emphasis on the natural history of local plants.

BIOL 552. Animal Natural History. (3-0-3); on demand. **Prerequisite:** BIOL 105 or equivalent. A survey of major taxonomic groups; with emphasis on the natural history of local animals.

BIOL 553. Environmental Education. (2-2-3); I. **Prerequisite:** consent of instructor. Distribution and reserve depletion of wildlife, forest, land, water, air, and mineral resources; emphasis on population, pollution, and environment. Field trips to environmentally important areas are required. (Especially designed for in-service and pre-service teachers.)

BIOL 555. Plant Morphology. (2-2-3); II. **Prerequisite:** BIOL 215. Fossil and living non-vascular plants (except bacteria) and vascular plants; emphasis on ecology, morphology, and evolution.

BIOL 561. Ecology. (2-2-3); II. **Prerequisites:** BIOL 210, BIOL 215, MATH 152 or higher, eight hours of college chemistry. Interrelations of organisms and environment. Some all-day field trips required.

BIOL 574. Experimental Courses. (1 to 4 hrs.); on demand. **Prerequisite:** variable. These courses are always innovative, perhaps non-traditional, and often specialized offerings designed to enhance programs in the biological and environmental sciences and other disciplines. If successful, individual courses may be assigned a standard number.

BIOL 580. History of Science. (3-0-3); III. See SCI 580.

BIOL 595. Biochemistry I. (2-4-4); I, III. **Prerequisite:** CHEM 326 and 326A or consent of instructor. Carbohydrates, lipids, and proteins; intermediary metabolism; protein synthesis; enzymology; blood chemistry; bioenergetics; fluid electrolyte balance; and vitamin and steroid chemistry.

BIOL 596. Biochemistry II. (2-4-4); II. **Prerequisite:** BIOL 595. Continuation of Biochemistry I. Intermediary metabolism of carbohydrates, lipids, proteins, and nucleic acids; function and mechanism of action of enzymes; energetics of living systems; and regulation of life processes.

BIOL 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. **Prerequisites:** variable. Workshops in various biological and environmental subjects presented periodically, based on need. Usually hands-on, experimental, and/or innovative, these workshops supplement various programs in the biological and environmental sciences or other disciplines. Individual credit towards degree programs must be approved by the student's advisor.

Chemistry

CHEM 100. Basic Chemistry. (3-2-4); I, II, III. A survey of chemistry with emphasis on biological systems. With laboratory.

CHEM 101. Survey of General Chemistry. (3-2-4); I, II, III. A survey of inorganic chemistry which includes elements, compounds, molecular geometry, bonding, redox, gases, acids, bases, and salts. Primarily for students in the applied sciences. With laboratory.

CHEM 111. Principles of Chemistry I. (3-2-4); I, II. **Prerequisite:** MATH 152 (or equivalent) or ACT mathematics score over 15. An introduction to stoichiometry and chemical equations, electronic structure of atoms and molecules, periodic properties, gases, phase equilibria, and solutions. Primarily for natural science and pre-professional students. With laboratory.

CHEM 112. Principles of Chemistry II. (3-2-4); I, II. **Prerequisite:** CHEM 111. Continuation of CHEM 111. An introduction to chemical equilibria, thermodynamics, and kinetics, electro-

chemistry, and coordination compounds. The descriptive chemistry of selected groups of elements is introduced. With laboratory.

CHEM 199. Selected Topics. (1 to 6 hrs.); on demand.

CHEM 201. Survey of Organic Chemistry. (3-2-4); I, II, III. Prerequisite: CHEM 101. An introduction to organic chemistry that includes nomenclature, molecular structure, functional groups and reactions, and topics related to medicinal and consumer chemistry. Primarily for students in applied sciences. With laboratory.

CHEM 223. Quantitative Analysis. (1-6-4); II. Prerequisites: CHEM 112 and 112A. An introduction to chemical analysis emphasizing gravimetric, volumetric, and spectrophotometric determinations.

CHEM 299. Selected Topics. (1 to 6 hrs.); on demand.

CHEM 301. Survey of Biochemistry. (3-2-4); I in alternate years. Prerequisite: CHEM 201. Chemistry of simple and complex biomolecules such as amino acids, proteins, carbohydrates, lipids, and nucleic acids. Biosynthesis and metabolic cycles; gene composition (DNA, RNA, etc.). Primarily for students in applied sciences and not for majors or minors in chemistry or biology. See BIOL 301. With laboratory.

CHEM 326. Organic Chemistry I. (3-2-4); I, II. Prerequisite: CHEM 112 and 112A. Structure and nomenclature of organic molecules; reactions and reaction mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers. With laboratory.

CHEM 327. Organic Chemistry II. (3-2-4); I, II. Prerequisite: CHEM 326. Introduction to interpretation of IR and NMR spectra; reactions and reaction mechanisms of aldehydes, ketones, carboxylic acids and derivatives, phenols, amines, and organometallics. With laboratory.

CHEM 328. Organic Chemistry III. (3-4-5); II alternate years. Prerequisite: CHEM 327. Advanced topics in organic chemistry; orbital symmetry, heterocyclics and polycyclics, macromolecules, carbanion reactions, and an introduction to physical organic chemistry. With laboratory.

CHEM 350. Inorganic Chemistry. (3-0-3); I in alternate years. Prerequisite: CHEM 112. CHEM 441 is recommended. Electronic structure and bonding in inorganic compounds. Physical properties related to structure and acid-base theories.

CHEM 399. Selected Topics (1 to 6 hrs.); on demand.

CHEM 410. Spectral Interpretation in Chemical Analysis. (2-0-2); on demand. Prerequisite: CHEM 327. The interpretation of nuclear magnetic resonance spectra, mass spectra, infrared and ultraviolet spectra of inorganic and organic molecules.

CHEM 441. Physical Chemistry I. (3-0-3); I. Prerequisite: CHEM 223 and 327. Pre- or corequisite: MATH 276. Chemical thermodynamics and chemical kinetics.

CHEM 442. Physical Chemistry II. (3-2-4); II. Prerequisite: CHEM 441. Topics include quantum chemistry, spectroscopy, statistical mechanics, and transport properties.

CHEM 450. Qualitative Organic Analysis. (2-4-4); II in alternate years. Prerequisite: CHEM 327. Physical and chemical methods for qualitative analysis of organic compounds; physical and chemical methods.

CHEM 460. Instrumental Analysis. (2-4-4); I. Prerequisites: CHEM 223 and 326. Quantitative applications of spectrophotometry and atomic spectroscopy, gas and liquid chromatography, electrochemistry and other selected analytical methods.

CHEM 499. Selected Topics (1 to 6 hrs.); on demand.

Communications (General)

COMM 139-539. Cooperative Study. I, II, III. The Department of Communications offers a series of cooperative study courses—COMM 139, 239, 339, 439 and 539—allowing students to alternate semesters of on-campus studies with periods of full-time related work experience. See general section of the catalog for a more complete description of Cooperative Education. Prior applica-

tion necessary. See restrictions applying to all programs in communications.

COMM 347. Internship. (1 to 3 hrs.); I, II, III.

Competency-based practical experience aimed at increasing the proficiency of the student in assigned positions. Prior application necessary. May be repeated. See restrictions applying to all programs in communications.

COMM 447. Internship. (1 to 3 hrs.); I, II, III.

Competency-based practical experience aimed at increasing proficiency of the student in the assigned positions. Prior application necessary. May be repeated. See restrictions applying to all programs in communications.

COMM 476. Special Problems. (1 to 3 hrs.); I, II, III. (By prior arrangement with instructor only.) Research on an original project with appropriate written report, within a subject area. May be repeated. See restrictions applying to all programs in communications.

Construction Technology

CON 101. Introduction to Construction Technology. (3-0-3); I. Discussion of various aspects of the construction industry including typical building methods, cost factors, and personnel requirements. Includes residential and commercial building.

CON 102. Surveying I. (1-4-3); II. Basic introduction to surveying methods plus introduction to surveying equipment.

CON 103. Materials Testing. (2-2-3); II. An investigation of materials science including typical physical destructive and nondestructive testing procedures. Reviews of ASTM and other standard agencies.

CON 104. Surveying II. (1-4-3); I. An extension of Surveying I with more in-depth field experience.

CON 201. Properties of Construction Materials. (2-2-3); I. An extension of materials testing with emphasis on heavy and highway construction materials, control standards, and properties expected.

CON 202. Structural Design. (2-2-3); I. Review of typical structural design methods with applied calculation using free body diagrams and other static load methods.

CON 203. Construction Methods and Equipment. (2-2-3); I. An investigation of various construction and building techniques, including traditional and modified methods. Laboratory will include model and prototype development.

CON 204. Codes, Contracts, and Specifications. (3-0-3); II. Exposure to local and state codes and architectural specifications necessary to meet contract requirements. Introduction to various code organizations and file systems.

CON 205. Estimating and Construction Costs. (3-0-3); II. Estimating cost procedures typically used for bid specifications. Current and projected material and construction cost accounting procedures.

CON 206. Construction Management. (3-0-3); II. Supervisory and administrative procedures typical of the construction industries. Personnel requirements and labor arrangements necessary for building contractors.

Corrections

COR 201. Sociology of Corrections. (3-0-3); I, II. An analysis of the theoretical and philosophical foundations of the American correctional system and an examination of its role in society. Contemporary treatment methods for adult and juvenile offenders will be surveyed.

COR 306. Juvenile Delinquency. (3-0-3); I, II. (See SOC 306.)

COR 310. The Sociology of Deviance. (3-0-3); I. (See Soc 310.)

COR 320. Probation and Parole. (3-0-3); II. An analysis of community treatment in the process of corrections. Emphasis is placed upon the development, organization, administration, operation, and results of probation and parole.

COR 388. History of Corrections. (3-0-3); II. This course provides the student with a background knowledge of the development of ideas and actions taken against those people who have been the objects of society's punishment.

COR 390. Field Experience in Corrections. (0-0-3); I, II, III. Field experience in a jail, detention home, juvenile or adult correctional institution, juvenile or adult probation or parole agency. Required for associate degree only.

COR 399. Selected Topics. (1 to 3 hrs.); on demand. Unique topics and learning experiences that supplement regular course offering. May be repeated in additional subject areas.

COR 401. Criminology. (3-0-3); on demand. (See SOC 401.)

COR 420. Seminar in Criminal Behavior. (3-0-3); II. Specific problems and issues concerning criminal behavior examined in depth. Includes analysis of the causes of particular kinds of behavior, examination of methods of control, and consideration of current approaches to rehabilitation.

COR 450. Research Methodology. (3-0-3); I, II, III. (See SOC 450.)

COR 476. Special Problems. (1 to 3 hrs.); I, II, III. Prerequisite: *Consent of instructor and department chair.* Arranged with the department to study some particular aspect of the field of corrections.

COR 510. Law of Corrections. (3-0-3); I. An analysis of civil law in the United States related to the protection of society, the accused and adjudicated offender, and the administration of justice.

COR 515. Correctional Counseling. (3-0-3); II. The basic concepts and principles involved in interviewing, counseling, and group therapy which are employed in correctional facilities.

COR 590. Practicum in Corrections. (0-0-6); I, II, III. The course consists of practical experience in a jail, detention home, juvenile or adult correctional institution, juvenile or adult probation and parole agency, or other related agency. A minimum of 20 hours per week will be spent at the assigned agency.

Data Processing

DATA 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

DATA 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various data processing subjects will be presented periodically to supplement the basic course offerings in data processing. Credit toward degree programs must be approved by the student's advisor.

DATA 201. Introduction to Computers. (3-0-3); I, II, III. Survey of computer systems, including hardware and software features. Familiarity with mainframe systems and with microcomputers. Introduction to programming and logic through the fundamentals of BASIC.

DATA 202. Computer Programming BASIC. (3-0-3); I, II, III. Prerequisite: DATA 201. Programming the computer using the BASIC language. No prior knowledge is assumed. Emphasis on problem solving and interactive mode programming.

DATA 203. Pascal Programming for Business and Science. (3-0-3); II. Prerequisite: DATA 201. Structured approach to business and scientific programming for beginners. Programming techniques for students wishing to pursue careers in business or science.

DATA 210. Computer Programming ASSEMBLER I. (3-0-3); I, II. Prerequisite: DATA 202. Programming stored program computer using ASSEMBLER language. Interpretation of machine

code and memory dumps in hexadecimal notation. The binary instruction set, condition code, mask and branching, looping, and subroutines.

DATA 215. Computer Programming COBOL I. (3-0-3); I, II. Prerequisite: DATA 210. Practical business applications programming using COBOL language. Terminal input and printer output used.

DATA 216. Programming in PL/1. (3-0-3); I. Prerequisite: DATA 210. Fundamentals of programming in PL/1 computer language. Practical business and scientific applications emphasized in programming assignments.

DATA 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in DATA 139 or of a nature similar to a sophomore status course.

DATA 260. FORTRAN Programming I. (3-0-3); I, II. Prerequisite: DATA 202. Introduction to FORTRAN programming language. Application of mathematical techniques to problems in programming business, engineering, management, and modeling. Examples employed to provide comprehensive knowledge of the language.

DATA 301. Microcomputers. (3-0-3); I, II, III. Prerequisite: DATA 202 or equivalent programming course. Hardware and software of microprocessor and its impact on business, industry, education, and home.

DATA 315. Computer Programming COBOL II. (3-0-3); I, II. Prerequisite: DATA 215. Advanced computer programming using COBOL. Tape and disk file structures and processing emphasized.

DATA 316. Advanced PL/1 Programming. (3-0-3); II. Prerequisite: DATA 216. Advanced computer programming using PL/1. Data structures, tape, and disk file structures and processing will be emphasized using business and scientific applications.

DATA 320. Computerized Business Systems. (3-0-3); I, II. Prerequisite: DATA 215 or 216. Hardware and software specifications, operating systems, programming systems, information theory, development, and use of computerized business applications.

DATA 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

DATA 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various data processing subjects will be presented periodically to supplement the basic course offerings in data processing. Credit toward degree programs must be approved by the student's advisor.

DATA 405. Systems Analysis and Design. (3-0-3); I, II. Prerequisite: DATA 215. Systems analysis, feasibility studies, economic cost comparisons, systems implementation, the tools of systems analysis.

DATA 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

DATA 476. Special Problems in Data Processing. (1 to 3 hrs.); I, II, III. Prerequisite: open to majors and minors in data processing with prior consent of the advisor. This course is an independent study of data processing problems of special interest. Students must present in writing a suggested problem and justification for the study prior to registration. Each request will be considered on its own merit in relation to the special needs of the student.

DATA 515. Data Processing Field Project. (3-0-3); II. Prerequisites: DATA 215 or 216 and permission of instructor. Experience in actual data processing situations outside the classroom; students assigned in University's data processing center and other approved computer facilities.

DATA 516. Educational Data Processing. (3-0-3); I, II, III. The development of competencies in the use of microcomputers for instruction, management, information processing, computer assisted instruction, and practical high-level programming applica-

tions through programming assignments. Hardware and operating systems are covered. Designed primarily for students without previous data processing instruction.

DATA 526. Data Base Management Systems. (3-0-3); II, III. Prerequisite: DATA 320. Data base structures, creation, modification, processing, and physical representation.

DATA 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various data processing subjects will be presented periodically to supplement the basic course offerings in data processing. Credit toward degree programs must be approved by the student's advisor.

Economics

ECON 101. Introduction to the American Economy. (3-0-3); I, II. Introduction to fundamental concepts and principles of economics with emphasis on institutions basic to the American economic system. (Cannot be used to satisfy the requirements for the economics major, minor, or option; not open to those who have had ECON 201 or equivalent.)

ECON 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

ECON 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various economic subjects will be presented periodically to supplement the basic course offerings in economics. Credit toward degree programs must be approved by the student's advisor.

ECON 201. Principles of Economics I. (3-0-3); I, II, III. Theories of income, employment, monetary policy, fiscal policy, the price level, and economic growth.

ECON 202. Principles of Economics II. (3-0-3); I, II, III. Prerequisite: ECON 201. A continuation of ECON 201 with emphasis on the theory of the firm, resource allocation, and international economics.

ECON 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in ECON 139 or of a nature similar to a sophomore status course.

ECON 302. Labor Economics. (3-0-3); I, II. Prerequisite: ECON 201 or junior standing. Labor management relations, the labor movement, labor legislation, government control and regulation, economic inequality, standards of living, and industrial conflicts.

ECON 305. Comparative Economic Systems. (3-0-3); on demand. Prerequisites: ECON 201 and 202. A study of influential theories of the major economic systems: Capitalism, Marxism, and Communism. Descriptive analysis of the operation of the corresponding economies.

ECON 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level course.

ECON 350. Microeconomic Theory. (3-0-3); I, II, III. Prerequisites: MATH 160, ECON 201 and 202. Analysis of the behavior of the household and the firm, with emphasis on the role of prices in allocating resources, organizing production, and distributing goods and services.

ECON 389. Honors Seminar in Economics. (3-0-3); on demand. Prerequisite: Membership in university Honors Program. Analysis of contemporary economic problems and policy alternatives. Topics may vary each semester.

ECON 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various economic subjects will be presented periodically to supplement the basic course offerings in economics. Credit toward degree programs must be approved by the student's advisor.

ECON 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

ECON 476. Special Problems in Economics. (1 to 3 hrs.); I, II, III. Prerequisites: open to majors or minors in economics with prior consent of the instructor. This course is an independent study of economic problems of special interest. Students must present in writing a suggested problem and justification for the study prior to registration. Each request will be considered on its own merit in relation to the special needs of the student.

ECON 500. Mathematical Economics. (3-0-3); I. Prerequisites: MATH 160 and 354. Application of mathematical and statistical techniques to the theory of the firm, market, and national income models.

ECON 501. Environmental Economics. (3-0-3); II. Prerequisites: ECON 201 and 202 or consent of instructor. Analysis of the economic reasons contributing to environmental degradation and exploration of economic policies to reduce this problem. May not be taken for M.B.A. credit.

ECON 503. Urban and Regional Economics. (3-0-3); on demand. Prerequisites: ECON 201 and 202. Analysis of location patterns, land use, urban and regional structure and growth, and development strategies. Emphasis is placed on contemporary problems and possible solutions.

ECON 510. History of Economic Thought. (3-0-3); on demand. Prerequisites: ECON 201 and 202. The origin and development of economic theories from the Mercantilist through modern times.

ECON 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

ECON 541. Public Finance. (3-0-3); I. Prerequisites: ECON 201 and 202 or consent of instructor. Public expenditures; public revenue; taxation; public credit; financial administration of government.

ECON 545. Industrial Organization and Public Policy. (3-0-3); on demand. Prerequisites: ECON 201 and 202 or ECON 504. Forms of business combination; the problem of business concentration and monopoly; the role of the regulatory agency; antitrust legislation and interpretation.

ECON 547. International Economics. (3-0-3); I. Prerequisites: ECON 201 and 202 or consent of instructor. International trade theory, international monetary relationships, and the balance of payments. Emphasis is placed on contemporary problems and possible solutions.

ECON 551. Macroeconomic Theory. (3-0-3); I. Prerequisites: ECON 201 and 202 or ECON 504. National income accounting; macroeconomic theories of output determination, employment, inflation, and growth; monetary and fiscal policies to control aggregate economic activity.

ECON 555. Economic Development and Growth. (3-0-3); on demand. Prerequisites: ECON 201 and 202 or consent of instructor. Classical and modern theories of growth and development and their application in both advanced and underdeveloped nations.

ECON 590. Economic Education for Teachers. (3-0-3); on demand. Fundamental economic concepts and their application and integration in education (cannot be used to satisfy requirements for the economics major, minor, or option, nor as an elective in the MBA program).

ECON 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various economic subjects will be presented periodically to supplement the basic course offerings in economics. Credit toward degree programs must be approved by the student's advisor.

Education (Adult and Continuing)

EDAC 102. Study Skills. (1-0-1); I, II (Each 9-week period). Course is designed to provide special training in the skills and techniques necessary for college level study.

EDAC 199. Selected Topics. (1 to 3 hrs.); I, II, III. Investigation of specific problem areas in the field of study. May be repeated in additional subject areas.

EDAC 299. Workshop. (1 to 3 hrs.); on demand. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas.

EDAC 399. Workshop. (1 to 3 hrs.); on demand. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas.

EDAC 499. Workshop. (1 to 3 hrs.); on demand. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas.

EDAC 554. Principles of Adult and Continuing Education. (3-0-3); I, II. Overview of adult education; historical development; psychological and sociological basis of adult learning; trends and major issues in adult education; and principles of teaching adults.

EDAC 599. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

Education (Early Childhood)

EDEC 199. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in early childhood education. Conferences with instructor by arrangement. Maximum of six semester hours may be earned under this course number.

EDEC 276. Independent Study. (1 to 3 hrs.); I, II, III. Directed study of specific areas in early childhood education. Conferences with instructor by arrangement. Maximum of six semester hours may be earned under this course number.

EDEC 399. Workshop. (1 to 3 hrs.); I, II, III. Continuation of EDEC 199.

EDEC 470. Research Problems. (1 to 3 hrs.); I, II, III. Independent research study of a professional nature. Conferences with instructor by arrangement. Maximum of six semester hours may be earned under this course number.

EDEC 527. The Pre-School Child. (3-1-3); I, II, III. Principles of growth and development from prenatal period to age six. Focuses attention on learning experiences for nursery and kindergarten age children. (Laboratory experiences an integral part of course.)

EDEC 528. Activities and Materials in Early Childhood. (3-1-3); I, II, III. Investigates needs and interests of early childhood and provides opportunities to explore objectives, materials, and techniques of instruction for this age group. (Laboratory experiences an integral part of course.)

EDEC 529. Practicum in Early Childhood Education. (1-4-4); I, II, III. *Prerequisites:* EDEC 527, 528, and admission to teacher education program.. Students are assigned to pre-school classroom for observation, participation, and teaching. On-campus seminars are held weekly. (Application made through coordinator of professional laboratory experiences.)

EDEC 599. Workshop. (1 to 3 hrs.); I, II, III. *Prerequisites:* upper division or graduate classification. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

Education (Elementary)

Provides diagnostic independent guided improvement of reading skills. Vocabulary and improved comprehension skills are stressed.

EDEL 111. Developmental Reading II. (2-2-3); I, II, III. *Prerequisite:* EDEL 110. Continuation of Developmental Reading I.

EDEL 112. Reading English as a Second Language. (2-2-3); I, II, III. Individualized program for teaching vocabulary and reading skills to the non-English speaking student.

EDEL 199. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in elementary education. Maximum of six semester hours may be earned under this course number.

EDEL 228. Literature and Materials for Children. (3-0-3); I, II, III. Survey of children's literature from its beginning to present time; all types of literature except textbooks. Various types of media for preschool through grade six. Emphasis on criteria for evaluation and aids for selection of materials; reading interests, needs, and abilities of children.

EDEL 250. Practicum. (1 to 6 hrs.); I, II, III. Experiences include placement in either a classroom or simulated classroom laboratory.

EDEL 276. Independent Study. (1 to 3 hrs.); I, II, III. Directed study of specific areas in elementary education. Topic must be approved in advance by instructor. Conferences with instructor by arrangement.

EDEL 301. Media Strategies. (2-2-2); I, II. Introduction to educational media. Principles of utilization and hands-on experience with hardware and software. Basic production projects also required.

EDEL 321. Teaching of Arithmetic. (2-2-3); I, II, III. *Prerequisites:* admission to the teacher education program and MATH 231 or corequisite course. Essential number concepts; emphasis on functional arithmetic and its application. (Laboratory experiences are integral part of course.)

EDEL 322. Teaching Social Studies in the Elementary School. (3-0-3); I, II, III. *Prerequisite:* admission to teacher education program. Scope and sequence of skills and concepts of social studies program in the elementary school. Emphasis given to instructional methods and recent trends in social studies area. (Laboratory experiences are integral part of course.)

EDEL 323. Language Arts for the Elementary School. (3-0-3); I, II, III. *Prerequisite:* admission to teacher education program. Role of language arts program in elementary school curriculum. Identification of language arts skills and subsequent teaching techniques of skills will be central to course. Skills emphasized are listening, speaking, writing, and spelling. (Laboratory experiences an integral part of course.)

EDEL 333. Fundamentals of Elementary Education. (3-1-4); I, III. *Prerequisites:* admission to teacher education program and approval of head of the department. Introduction to content areas of the elementary curriculum, including teaching methods and materials. Emphasis is placed on the role of special teachers in the total school program.

EDEL 336. Foundations of Reading. (2-2-3); I, II, III. *Prerequisite:* admission to teacher education program. Materials and methods of teaching basic reading skills in grades K-8. Students are taught how to teach subskills of word attack, vocabulary development, and comprehension. (Laboratory experiences an integral part of course.)

EDEL 337. Reading Strategies for the Elementary Teacher. (2-2-3); I, II, III. *Prerequisites:* admission to teacher education program and EDEL 336 or equivalent. Materials and methods of teaching advanced reading skills in grades K-8. Students are taught how to teach skills needed for content area reading. Various types of grouping techniques stressed. (Laboratory experiences an integral part of this course.)

EDEL 410. Human Growth and Development II. (3-0-3); III. *Prerequisites:* EDF 207, 211, and admission to teacher education program. (When taken separately, approval of head of the department is required.) Continuation of EDF 211.

EDEL 425. Supervised Teaching Practicum—Elementary. (4 to 12 hrs.); I, II. See *prerequisites for admission to professional semester*. Student is assigned to student teaching center during which time observation, participation, and student teaching are done. Teaching may be done in any elementary grade. Special conferences with supervising teacher, attendance, and participation in faculty meetings and out-of-school activities required.

EDEL 427. Professional Semester (Elementary). (9-30-15); I, II. Professional semester is comprised of EDEL 410, and 425. *Prerequisites:* EDF 207, 211, EDEL 301, 321, 322, 323, 336 or 337, EDSP 230. Admission to teacher education program; attainment of a scholastic standing of 2.50 on a 4.0 scale on all residence courses at Morehead State at time student teaching begins; a minimum standing of 2.5 on a 4.0 scale on all work completed in area of concentration, major(s), and minor(s); completion of a minimum of 90 semester hours of work; at least one semester of residence credit earned at this university, and approval of the university Teacher Education Council. Twelve weeks spent in student teaching and four weeks spent in class work. National Teacher Exam required. (Application made through coordinator of professional laboratory experiences.)

EDEL 470. Research Problems. (1 to 3 hrs.); I, II, III. Independent research study of a professional nature. Conferences with instructor by arrangement. Maximum of six semester hours may be earned under this course number.

EDEL 516. Educational Data Processing. (3-0-3); I, II, III. The development of competencies in the use of microcomputers for instruction, management, information processing, computer assisted instruction, and practical high-level programming applications through programming assignments. Hardware and operating systems are covered. Designed primarily for students without previous data processing instruction.

EDEL 562. Remedial Reading. (2-2-3); I, III. *Prerequisite:* EDEL 336 or equivalent course. Materials, methods of diagnosing and treating reading difficulties. (Laboratory experiences an integral part of course.)

EDEL 599. Workshop. (1 to 3 hrs.); I, II, III. *Prerequisite:* upper division or graduate classification. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

Education (Foundations)

EDF 207. Foundation of Education. (3-0-3); I, II, III. Orientation for student considering teaching as a career. Course will survey the scientific, historic, philosophic, and social foundations of the teaching profession. (Laboratory experiences an integral part of course.)

EDF 211. Human Growth and Development. (3-0-3); I, II, III. *Prerequisite:* PSY 154. Survey of developmental patterns from birth to adulthood and their implications for elementary and secondary teachers. (Laboratory experiences an integral part of course.)

EDF 311. Learning Theories in the Classroom. (3-0-3); I, II, III. Study of the principles of learning and motivation as they are applied in the classroom. (Laboratory experiences an integral part of course.)

EDF 360. History of Education. (3-0-3); II. Education in ancient, medieval, and modern periods; early American backgrounds; early campaigns for improvement of instruction and teacher training; development of present practices; great educators of each period and their contribution.

Education (Guidance and Counseling)

EDGC 105. Career Planning. (2-0-2); I, II. Systematic information and guidance in career development provided which assists the student in making a realistic career decision consistent with needs, abilities, attitudes, and personal goals.

EDGC 199. Selected Topics. (1 to 3 hrs.); I, II, III. Investigation of specific problem areas in field of study. May be repeated in additional subject areas.

EDGC 299. Workshop. (1 to 3 hrs.); on demand. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas.

EDGC 364. Career and Vocational Guidance. (3-0-3); II. Study of concept of career education, and exploration of emerging role of the guidance counselor in regard to problems that exist in present educational system; innovative concept of career education; counselor and classroom teacher's responsibility within the framework of career education; evaluation of career education and exploring future implications for developing positive attitudes and values for work for all students including the disadvantaged and handicapped.

EDGC 399. Workshop. (1 to 3 hrs.); on demand. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas.

EDGC 499. Workshop. (1 to 3 hrs.); on demand. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas.

EDGC 566. Introduction to Vocational Rehabilitation Services. (3-0-3); I, III. History of vocational rehabilitation movement, legislative efforts, and impact; overview of the rehabilitation process, roles of rehabilitation professionals in various rehabilitation settings, discussion of values and ethics, and examination of professional organizations for rehabilitation personnel.

EDGC 567. Rehabilitation of Special Groups. (3-0-3); I, III. *Prerequisite:* EDGC 566 or permission of instructor. In-depth study of various target populations in need of rehabilitation services, including physically disabled, public offenders, delinquents, drug addicts, aged, mentally ill, mentally retarded, and the educationally, socially, and culturally disadvantaged.

EDGC 580. Measurement Principles and Techniques. (3-0-3); I, III. Identification of educational objectives associated with test construction; table specifications; elementary statistics; testing and nontesting procedures. Investigations of major types of tests; administration, scoring, and interpretation of test results.

EDGC 599. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

Education (Secondary)

EDSE 199. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in secondary education. Maximum of six semester hours may be earned under this course number.

EDSE 276. Independent Study. (1 to 3 hrs.); I, II, III. Directed study of specific areas in secondary education. Conferences with instructor by arrangement. Maximum of six semester hours may be earned under this course number.

EDSE 312. Teaching Skills and Media. (2-2-3); I, II, III. *Prerequisites:* admission to teacher education program and EDF

311. Introduction to classroom teaching skills and methods. The instructional process is covered with emphasis upon lesson preparation and presentation, including mediation of instruction; long-term and short-term instructional planning; human interaction skills.

EDSE 399. Workshop. (1 to 3 hrs.); I, II, III. Continuation of EDSE 199.

EDSE 415. Teacher in Today's Schools. (3-0-3); I, II. *Prerequisite:* admission to professional semester. An application of previous learning in development of an instructional unit taught during student teaching; an orientation to student teaching experience; miscellaneous activities relating to areas of teacher concerns, i.e., school law, pupil accounting, professional organizations, principles of classroom organization and management; and human interaction skills.

EDSE 416. Student Teaching. (12-0-12); I, II. *Prerequisite:* admission to professional semester. Classroom component comprised of preparation for student teaching followed by placement in a student teaching center during which time observation, participation, and student teaching are done. Special conferences with supervising teacher, attendance and participation in faculty meetings, co-curricular activities, and the National Teacher Exam required. (Application made through coordinator of professional laboratory experiences.)

EDSE 470. Research Problems. (1 to 3 hrs.); I, II, III. Independent research study of a professional nature. Conferences with instructor by arrangement. Maximum of six semester hours may be earned under this course number.

EDSE 516. Educational Data Processing. (3-0-3); I, II, III. The development of competencies in the use of microcomputers for instruction, management, information processing, computer assisted instruction, and practical high-level programming applications through programming assignments. Hardware and operating systems are covered. Designed primarily for students without previous data processing instruction.

EDSE 576. Reading in the Secondary School. (2-2-3); I, II, III. Emphasis is centered around reading instruction in junior high and high school. Materials are included for instruction and studies of administrative problems involved. (Laboratory experiences an integral part of course.)

EDSE 599. Workshop. (1 to 3 hrs.); I, II, III. *Prerequisites:* upper division or graduate classification. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

Education (Special)

EDSP 199. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in special education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

EDSP 230. Education and Exceptional Children. (3-0-3); I, II. *Prerequisite:* PSY 154. Procedures for identification, education, and treatment of exceptional children—the gifted, those with low intelligence, and handicapped—including behavioral deviations.

EDSP 231. Field Experiences. (0-6-3); I, II. Involves the student in on-site experiences in a variety of schools, institutions, and agencies providing services to the trainable mentally handicapped. Should be taken concurrently with EDSP 230.

EDSP 276. Independent Study. (1 to 3 hrs.); I, II, III. Independent study of a professional problem in special education.

EDSP 320. Introduction to Corrective Speech. (3-0-3); I, II. Introductory course in speech correction for classroom teacher. (Same as SPCH 320.)

EDSP 332. Teaching the Exceptional Student. (2-2-2); I, II. *Prerequisites:* EDF 311. Describes physical and behavioral characteristics of exceptional students and their educational needs. Des-

cribes social and legal responsibilities regarding exceptional persons and reviews educational practices and appropriateness for specific exceptional behavior.

EDSP 350. Characteristics of Individuals with Mental Retardation and Orthopedic Handicaps. (2-2-3); I, II. *Prerequisite:* EDSP 230 or 601. Biological, physical, etiological, psychological, and educational characteristics of individuals demonstrating significant deviations in mental or physical behavior. The likely needs of these mentally retarded and orthopedically impaired individuals discussed in light of their presenting problems.

EDSP 399. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in special education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

EDSP 435. Supervised Teaching Practicum. (4 to 12 hrs.); I, II, III. *Prerequisites:* admission to teacher education program; attainment of scholastic standing of 2.50 on residence courses at Morehead State; minimum standing of 2.5 on all work completed in area of concentration, major(s), and minor(s); minimum of one semester residence; and approval of the university Teacher Education Council. Placement in public school special education and elementary education classrooms on the basis of one week placement for each credit hour unit. (Application made through coordinator of professional laboratory experiences.)

EDSP 436. Supervised Teaching Practicum. (4 to 12 hrs.); I, II, III. *Prerequisites:* admission to the teacher education program; attainment of a scholastic standing of 2.50 on residence courses at MSU; minimum standing of 2.5 on all work completed in area of concentration, major(s), and minor(s); minimum of one semester residence; and approval of the university Teacher Education Council. Placement in a public school setting with trainable mentally handicapped students and in regular elementary classrooms on the basis of one week placement for each credit hour unit. (Application made through coordinator of professional laboratory experiences.)

EDSP 470. Research Problems. (1 to 3 hrs.); I, II, III. Independent research study of a professional problem. Conferences with instructor by arrangement.

EDSP 537. Educational Assessment of Exceptional Children. (2-2-3); I, III. Assessment methodology relating to identification of behavioral deficits and excesses of students which lessen their performance level in one or more core academic subject areas.

EDSP 547. The Trainable Mentally Handicapped. (3-0-3); I. *Prerequisites:* EDSP 230 and 550. Etiology and symptomatology of trainable mentally handicapped children and assessment procedures appropriate with children who are severely to profoundly handicapped.

EDSP 550. Characteristics of Individuals with Learning Disabilities and Behavior Disorders. (2-2-3); I, III. *Prerequisite:* EDSP 230 or 601. Biological, physical, etiological, psychological, and educational characteristics of individuals demonstrating significant deviations in learning and behavior disorders. The likely needs of learning disabled and behavior disordered individuals discussed in light of their presenting problems.

EDSP 551. Curriculum for Pre-School Exceptional Children. (2-2-3); II, III. *Prerequisites:* EDSP 230 and 550. Designed to prepare the teacher to work with pre-school children having handicapping conditions. Curriculum procedures involving perpetual-motor activities, prosthetic devices, and system approaches in special education featured.

EDSP 552. Learning Disabilities. (3-0-3); III. Examination of psychological, medical, and educational literature involved with survey, clinical, and experimental work concerning a specific learning disorder.

EDSP 553. Language Arts for Exceptional Students. (2-2-3); I, III. *Prerequisites:* EDSP 230, 350, 550 and 537 or consent of instructor. Designed to prepare the teacher of exceptional children in curriculum development and specialized procedures for teaching language arts, including reading, spelling, handwriting, language, and written composition.

EDSP 555. Prescriptive Teaching for Children with Learning and Behavior Problems. (2-2-3); I, III. Prerequisite: EDSP 230, 350, 537, 550 and 553 or 557, or consent of instructor. Transfer of educational assessment data into behavioral objectives, instructional planning for implementing such objectives, behavior management, techniques, methods and materials for instruction, and formative and terminal evaluation techniques for individuals with learning and behavior problems.

EDSP 556. Teaching the Trainable Mentally Handicapped. (2-2-3); II. Prerequisites: EDSP 547 and 550. Application of methods and materials for teaching trainable mentally handicapped. Construction and use of instructional aids to be used with handicapped individual.

EDSP 557. Content Areas and Career Preparation for Exceptional Students. (2-2-3); I, III. Prerequisites: EDSP 230, 350, 537 and 550 or consent of instructor. Designed to prepare teacher of exceptional children in curriculum development and specialized procedures for teaching mathematics, content areas, and preparing students for vocations.

EDSP 558. Learning Disabilities Methodology. (2-2-3); III. Prerequisite: EDSP 552. Application of materials and methods (including construction of instructional aids) for teaching student with learning disabilities.

EDSP 581. Educational Statistics. (2-2-3); II, III. Introduction of statistical and graphical methods to educational and psychological logical data. Includes areas of descriptive and inferential statistics that apply to educational research.

EDSP 599. Workshop. (One to three hours); I, II, III. Supervised practice in working in specific areas of special education.

Education (Professional)

EDUC 582. Discipline and Classroom Management. (3-0-3); I, II, III. Designed to provide assistance in establishing an organized, well-managed classroom. Emphasis on available options and alternatives in dealing with disruptive student in classroom.

Electricity-Electronics Technology

EET 140. Basic Electricity. (2-2-3); I, II. General course on the laws, theories, and applications of electricity. NON—MAJORS ONLY. Majors of electricity, electronics, or robotics should take EET 141. Lab required.

EET 141. Electrical Circuits. (2-2-3); I, II. Introduction to direct and alternating current circuits, including resistive, inductive, and capacitive components, reactance.

EET 240. Residential Wiring. (2-2-3); I, II. Prerequisite: EET 140, or EET 141, or consent of the instructor. Designing, planning, estimating, and methods of constructing electrical systems for single family dwellings. Based on most recent National Electrical Code. Lab required.

EET 241. Circuit Analysis. (3-0-3); II. Prerequisite: EET 141. Mathematical analysis of d-c and a-c circuits using Kirchhoff's laws, Thevenin's and Norton's theorems, determinants, polar-rectangular conversions, and vectors.

EET 242. Transistors and Semiconductors. (2-2-3); I. Prerequisite: EET 141 or consent of the instructor. Physical properties, models, and basic circuit design of transistor and semiconductor devices.

EET 243. Power Transformers and Distribution. (2-2-3). Prerequisite: EET 141 or consent of the instructor. The study of electrical power generation and distribution. Analysis of transformers and transmission lines, and methods of producing electrical power. Lab required.

EET 245. Digital Electronics. (2-2-3); II. Prerequisites: EET 141 or consent of the instructor. Functional and logical operation of

digital circuits, including logic gates, combinational logic, multivibrators, counters and registers.

EET 338. Radio Operating Practices. (1-0-1); I, II. Basic law, technical operating practices, meter reading, and electronic fundamentals necessary in the operation of a broadcasting facility.

EET 341. Electrical Drafting and Design. (2-2-3); II. Prerequisite: GCT 103 and EET 141 or consent of the instructor. Electrical and mechanical design, documentation, and production of electrical and electronic devices, including printed circuit boards, parts layout final assembly, and packaging.

EET 343. Motors and Generators. (2-2-3); II. Prerequisite: EET 141 or consent of instructor. Characteristics, selection, and control of AC and DC motors, solenoids, and other commercial or industrial loads. Selection and application of control devices and relays. Design of control circuits using relay logic and programmable controllers. Lab required.

EET 344. Communications Circuits. (2-2-3); I. Prerequisite: EET 242 or consent of instructor. Radio frequency components and circuits, including passive and active devices, amplifier, oscillator, modulation, and detection circuits.

EET 345. Microprocessor Electronics. (2-2-3); I. Prerequisite: EET 245 or consent of instructor. Components and operation of a microprocessor system, including program counters, address counters, accumulators, arithmetic logic units, instruction decoders, controller-sequencers, and registers.

EET 442. Industrial Electronics. (2-2-3); I. Prerequisite: EET 141 or consent of instructor. Industrial transducers and control devices, including special diodes, PNP devices, SCRs, op-amps, and programmable controllers.

EET 443. Industrial Electricity. (2-2-3); II. Prerequisites: EET 241 and EET 240 or consent of instructor. Design, theory, and wiring techniques for commercial and industrial applications. Multi-family dwellings, commercial buildings, and hazardous locations are some of the topics covered. Based on the most recent National Electrical Code. Lab required.

EET 444. Communications Systems. (2-2-3); II. Corequisite: EET 344 or consent of instructor. Radio transmitters, data communications, television, transmission lines and networks, and antennas.

EET 445. Computer Electronics. (2-2-3); II. Prerequisite: EET 345 or consent of instructor. Computer architecture, addressing modes, instruction sequence, memories, IO systems, AD systems, assemblers, interpreters, operating systems and microprocessor interfacing.

English

Honors Seminar in Modern Literature. (3-0-3). Intensive analytical study of a particular modern literary technique, movement, theme, or author. Restricted to Honors Program students.

NOTE: English 101 and 102 or 192, or English 103 are prerequisites for all other English courses.

ENG 099. Basic Writing Skills. (3-0-3). A placement composition course with an emphasis on writing sentences and paragraphs. Does not satisfy the general education requirement in written composition.

ENG 101. Composition I. (3-0-3). Development of writing ability, basic problems of structure of language, frequent papers.

ENG 102. Composition II. (3-0-3). Continuation of ENG 101; emphasis on critical thinking; frequent papers, including a short research paper.

ENG 103. Composition III. (3-0-3). An advanced placement composition course which covers in one semester the essential material of ENG 101 and 102.

ENG 192. Technical Composition. (3-0-3). Continuation of 101, with emphasis on the writing of scientific-industrial directions, letters, and memos, abstracts, minor project reports, and the use of visual aids.

ENG 202. Introduction to Literature (3-0-3). Extensive reading in poetry, fiction, and drama, with emphasis on basic principles of literary evaluation. (Not recommended for English area, major, or minor students.)

ENG 211. Introduction to World Literature I. (3-0-3). Analysis of selected masterpieces of literature from the early Greeks to the Renaissance, with emphasis on ideas basic to the Western tradition.

ENG 212. Introduction to World Literature II. (3-0-3). Analysis of selected masterpieces of literature from the Renaissance to the present, with emphasis on ideas basic to the western tradition.

ENG 293. Creative Writing I. (3-0-3). Study of and practicum in description, narration, exposition, or poetry as literary forms, with extensive practice writing.

ENG 294. Creative Writing II. (3-0-3). Continuation of ENG 293.

ENG 305. Introduction to Linguistics. (3-0-3). Introduction to the major areas of contemporary linguistics.

ENG 310. Introduction to Science Fiction. (3-0-3). Representative science fiction short stories and novels, mostly by British and American authors of the twentieth century; occasional films; independent reading.

ENG 315. Structure of English. (3-0-3). The structures of the English language from the perspective of descriptive and structural linguistics.

ENG 325. Religious Literature of the World. (3-0-3). The literature of the major religions of the world.

ENG 331. British Literature to 1750. (3-0-3). A survey of British literature from *Beowulf* through Dr. Johnson.

ENG 332. British Literature since 1750. (3-0-3). A survey of British literature from Wordsworth to the present.

ENG 341. American Literature to 1850. (3-0-3). A survey of American literature from its colonial beginnings to Whitman.

ENG 342. American Literature since 1850 (3-0-3). A survey of American literature from Whitman to the present.

ENG 344. The Short Story and the Novel. (3-0-3). Study of representative forms of the short story and the novel.

ENG 360. Appalachian Literature. (3-0-3). Regional literature including selected works by such major writers of the region as Harriette Arnow, Jesse Stuart, and Wilma Dykeman.

ENG 365. Literature of the South (3-0-3). Readings in the major representative Southern authors.

ENG 367. Old Testament Literature. (3-0-3). A critical study of the history and literature of the Old Testament.

ENG 368. New Testament Literature. (3-0-3). A critical study of the history and literature of the New Testament.

ENG 391. Advanced Expository Writing. (3-0-3). Practice in the writing of expository prose, and long essays based on research.

ENG 393. History of the English Language. (3-0-3). The major developments in the evolution of English from an early Germanic dialect to its present form.

ENG 436. The English Renaissance. (3-0-3). Selected literature from 1500 to 1600, including works by Skelton, Wyatt and Surrey, Sidney, Spenser, and Shakespeare (excluding his plays).

ENG 441. Neoclassical Writers. (3-0-3). Representative selections of English literature, including works by Dryden, Pope, Swift, Addison and Steele, and Johnson.

ENG 442. Romantic Writers. (3-0-3). Representative selections of English literature, including works by Wordsworth, Coleridge, Byron, Shelley, Keats, and the essayists.

ENG 443. Victorian Writers. (3-0-3). Representative selections of English literature, including works by Browning, Tennyson, Arnold, and Carlyle.

ENG 444. Twentieth Century British Literature. (3-0-3). Study of modern British literary genres.

ENG 466. American Poetry. (3-0-3). The development of American poetry from its beginning to the present, with emphasis on such poets as Bradstreet, Whitman, Dickinson, Frost, Eliot, and Stevens.

ENG 499. Seminar: Major Writers. (3-0-3). Intensive study of one or more major figures in the literature of the world.

ENG 500. Studies in English for Teachers. (3-0-3). The philosophy, rationale, and content of English in American middle and high schools.

ENG 501. General Semantics. (3-0-3). Presents the problems of meaning as related to referential, distributional, and rational ways of encountering experience.

ENG 502. Non-print Literary Materials for Teachers 7-12. (3-0-3). *Prerequisite:* ENG 500 or consent of instructor. Student and faculty demonstrations of teaching the various literary genres; use of such appropriate non-print media as films, cassettes, and tapes to augment teaching effectiveness; and development of meaningful techniques of evaluating secondary school students of literature.

ENG 503. Teaching Writing. (3-0-3). Study of composition theory, research, and practice as applicable to the teaching and evaluation of writing for high school and college.

ENG 505. Linguistics: Grammar. (3-0-3). Principles of structural, transformational, generative, and tagmemic grammar.

ENG 528. Literary Criticism. (3-0-3). A survey of traditional criticism from the classical period to the twentieth century; or a study of modern criticism; the New Humanists, New Critics, Neo-Aristotelians, and various linguistics structuralists.

ENG 533. The English Novel. (3-0-3). Development of the English novel from its beginnings to the twentieth century.

ENG 534. Chaucer. (3-0-3). A careful reading and analysis of Chaucer's early poetry and the *Canterbury Tales*. Relevant aspects of medieval culture are also examined.

ENG 535. Shakespeare. (3-0-3). A study of selected comedies, histories, and tragedies in their historical and critical context.

ENG 539. Milton. (3-0-3). Intensive reading of Milton's poetry and major prose.

ENG 544. American Folklore. (3-0-3). A study of such traditional oral forms as the proverb, tale, epic, ballad, and folk song.

ENG 545. Seventeenth Century British Literature. (3-0-3). English literature 1600-1660; Donne, Jonson.

ENG 552. Early Dramatic Literature. (3-0-3). Representative dramas from the Greeks to the mid-nineteenth century.

ENG 553. Modern Drama. (3-0-3). Representative dramas from the advent of realism to the present.

ENG 561. Studies in American Literary Periods. (3-0-3). The study of the writers and genres of an American literary period.

ENG 563. American Fiction. (3-0-3). The development of American fiction from Charles Brockden Brown to Faulkner.

ENG 570. Introduction to Film Literature. (3-0-3). An introduction to the study of film as literature with extensive reading in the history of film and viewing of selected film classics.

ENG 591. Technical Writing I. (3-0-3). Principles of analysis, process, and definition; progress, recommendation, and research reports; proposals and memoranda; visual aids; transitions, mechanics of clear and precise statement.

ENG 592. Technical Writing II. (3-0-3). Continuation of ENG 591.

ENG 593. Fiction and Poetry Writing I. (3-0-3). Practicum in sustained writing. Evaluation and marketing of manuscripts.

ENG 594. Fiction and Poetry Writing II. (3-0-3). Continuation of ENG 593.

ENG 596. Seminar in Creative Writing. (1-0-1). *Prerequisite:* ENG 293, 593, or 594. Preparation of a manuscript of creative writing and revision for publication, with approval by instructor and another faculty member.

ENG 597. Technical Editing. (3-0-3). *Prerequisite:* ENG/JOUR 591 or permission of the instructor. Study of the practice and management of editing for technical, scientific, professional, and corporate reports and writings.

ENG 598. Logical Reasoning for Aptitude Examination. (3-0-3); on demand. Application of the language of logical reasoning and practical judgement in qualitative and quantitative aptitude examinations such as LAST, GRE, NTE, GBAT, GMAT, CTBS, ACT, and SAT. May not be used as an elective in any English program.

Finance

FIN 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objective and academic preparation. Experience is usually analogous to a freshman level course.

FIN 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various finance subjects will be presented periodically to supplement the basic course offerings in finance. Credit toward degree programs must be approved by the student's advisor.

FIN 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in FIN 139 or of a nature similar to a sophomore status course.

FIN 252. Mathematics of Finance. (3-0-3); I, II. Interest annuities, amortization, sinking funds, bond valuation, life insurance.

FIN 264. Personal Finance. (3-0-3); II. Planning personal finance, financial statements, budgeting, managing financial and non-financial assets, taxes, insurance, and estate planning.

FIN 325. Bank Management. (3-0-3); I. Prerequisite: consent of instructor. Organization and operation of the commercial bank.

FIN 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

FIN 342. Money and Banking. (3-0-3); I. Prerequisite: ECON 201. Origin, development, and functions of money; banking functions and processes; the Federal Reserve System and monetary policy.

FIN 343. Investments. (3-0-3); II. Prerequisite: ECON 360. Investment risks, security analysis, investment policy-making, both individual and institutional.

FIN 360. Business Finance. (3-0-3); I, II, III. Prerequisites: ACCT 282, ECON 202, MATH 160 and 354. Financial management, management of cash, receivables, inventories, plant assets, short-term debt, long-term debt, intermediate-term debt, owner's equity.

FIN 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various finance subjects will be presented periodically to supplement the basic course offerings in finance. Credit toward degree programs must be approved by the student's advisor.

FIN 407. Principles of Insurance. (3-0-3); I. Prerequisite: ECON 202, junior standing, or permission of instructor. A general course in risk and insurance, including basic insurance concepts, legal principles, property and liability insurance, life and health insurance, and the insurance industry organization and operations.

FIN 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

FIN 460. Advanced Business Finance. (3-0-3). I, II. Prerequisites: FIN 360, ACCT 387 or consent of instructor. Includes intensive study of capital budgeting, cost of capital, capital structure, special topics in finance.

FIN 476. Special Problems in Finance. (1 to 3 hrs.); I, II, III. Prerequisite: Open to majors and minors in finance with prior consent of the instructor. This course is an independent study of finance problems of special interest. Students must present in writing a suggested problem and justification for the study prior to registration. Each request will be considered on its own merit in relation to the special needs of the student.

FIN 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

FIN 543. Portfolio Analysis. (3-0-3). Prerequisites: FIN 360 and 343 or consent of instructor. Includes study of portfolio theory, risk analysis, portfolio management. Applications including computer analysis of financial data stressed.

FIN 560. Financial Markets. (3-0-3); I, II. Prerequisite: ECON 201 and 202. Institutional and business factors that influence demand and supply of funds, effect on price movements, detailed analysis of money and capital markets.

FIN 590. Seminar in Financial Theory and Practice. (3-0-3). II. Prerequisites: FIN 343, 460, and 560. Examination and application of contemporary financial theory and analysis. Study of classical literature and the evolution of contemporary financial theory. Examination of the role of events and institutions on the evolution of financial thought.

FIN 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various finance subjects will be presented periodically to supplement the basic course offerings in finance. Credit toward degree programs must be approved by the student's advisor.

Fine Arts

FNA 160. Appreciation of the Fine Arts. (3-0-3); I, II, III. To make students aware of the relationship of the common core which permeates all the arts.

FNA 187-588. Opera Workshop. (0-2-1); I, II. An introduction to the techniques of musical theatre with emphasis placed on the integration of music and action-dramatic study of operatic roles.

French

FRN 101. Beginning French I. (3-2-3). Drill on hearing and speaking; reading of simple texts; basic points of grammar.

FRN 102. Beginning French II. (3-2-3). Review of grammar; stress on active use of the language; reading, speaking, writing, and understanding.

FRN 201. Intermediate French. (3-0-3). Exercises in writing compositions based on readings. Laboratory work designed to complete mastery of basic language patterns and active vocabulary.

FRN 202. Conversation and Composition. (3-0-3). Intensive training in correct writing and fluent speech. Subject matter taken from literary selections.

FRN 203. Introduction to France. (3-0-3). The elements which have contributed to the culture of France.

FRN 321. Literature of the Middle Ages and Renaissance. (3-0-3). An introduction to typical epics, romances, and bourgeois poetry, followed by study of selections from Villon, Marot, Rabelais, the Pleiade, and Montaigne.

FRN 322. Seventeenth-Century Literature. (3-0-3). Study of French Classicism through representative plays.

FRN 323. Eighteenth-Century Literature. (3-0-3). Development of rationalistic and democratic tendencies as expressed in the writings of the period leading up to the Revolution.

FRN 324. Nineteenth-Century Literature. (3-0-3). Examination of representative works illustrating the development of literature from Romanticism to Realism and Symbolism.

FRN 405. Linguistics and Language Teaching. (3-0-3). For French majors and minors. A seminar in various foreign languages requiring projects appropriate to the specialty in each.

FRN 435. Twentieth-Century Literature. (3-0-3). Selected works of recent writers: France, Romain Rolland, Gide, Proust, Giraudou, Sartre, and others.

FRN 550. Reading French I. (3-0-3). Prerequisite: permission of instructor. Intensive practice in reading of the French language, with rapid and correct idiomatic translation as the aim.

FRN 551. Reading French II. (3-0-3). Prerequisite: FRN 550 or permission of the instructor. Further study of grammar and drill in reading, with emphasis on reading in the student's own subject area.

Geography

GEO 100. Fundamentals of Geography. (3-0-3); I, II, III. Man's varied responses and adjustments to his natural and cultural environment; human activity within major regions of the world. Basic to further study in geography.

GEO 101. Physical Geography. (3-0-3); I Physical elements of the earth and their distribution; weather, climate, landforms, earth materials, water resources, and natural vegetation analyzed and interpreted as elements of human habitation; correlated field trips and laboratory studies.

GEO 211. Economic Geography. (3-0-3); II. World commodities and their regional distribution. Analysis of land uses, agriculture, manufacturing, and extractive industries against a background of natural cultural environments; consideration of economic factors in current international affairs.

GEO 241. United States and Canada. (3-0-3); I, II. Major land-use regions of the United States and Canada, their physical and cultural landscapes.

GEO 300. World Geography. (3-0-3); I, II, III. A general survey of the human and physical geography of the major regions of the world. Emphasis is on the interaction between man and his environment in various environmental settings.

GEO 310. Australia. (3-0-3); I. Resources of Australia, New Zealand, and islands of the Pacific; significance of position and political connection of these lands.

GEO 319. Middle America. (3-0-3); on demand. Mexico, the Central American Republics, and the islands of the Caribbean; emphasis upon cultural and historical traditions.

GEO 320. South America. (3-0-3); on demand. Regional analysis on national and continental basis with treatment of the physical, cultural, and economic characteristics; stress upon prospects of expansion for settlement, development of resources, and growth of industries.

GEO 328. Africa. (3-0-3); on demand. Resources, both natural and cultural; changing political conditions and affiliations of African countries, recognition of, and reasons for, the growing importance of this continent in world affairs.

GEO 331. Europe. (3-0-3); on demand. Geographic factors in the economic, social, and political structure of Europe; emphasis on natural regions, resource distribution, and industrial development.

GEO 341. Appalachia. (3-0-3); I, III. A geographic analysis of the various physical and human elements of the Appalachian Highlands. Emphasis is placed on the relationship of the physical environment to man's activities in the region.

GEO 344. Kentucky. (3-0-3); on demand. Physiographic divisions and subdivisions; interpretations of natural features; occupations and land use; a survey of political units and consideration of traditions and potentialities.

GEO 349. Cartography I. (3-0-3); on demand. History of map-making; properties and qualities of maps; characteristics of map projections; construction of basic projections; basic techniques of mapping spatial data.

GEO 350. Cartography II. (3-0-3); on demand. Prerequisite: GEO 349. Selection of source material for the base and body of the map; mechanical reproduction; construction of complex projections; basic aerial photo interpretation; field mapping techniques and practice.

GEO 360. Physiography of the United States. (3-0-3); on demand. Prerequisite: physical geography or geology. Description and detailed analysis of the physiographic provinces. An explanation and interpretation of surface features and their evolution.

GEO 366. Political Geography. (3-0-3); II. A study of principles and concepts of political geography and their application to understanding the variation of political phenomena from place to place on earth.

GEO 375. The Teaching of Social Studies. (3-0-3); Prerequisite: open only to majors and minors in the social sciences with a

minimum of 18 credit hours. This course will demonstrate methods for organizing a teaching unit, using original courses, developing critical thinking, facilitating inquiry learning, integrating the social studies, and evaluating student performance. (Does not count in a major or minor.)

GEO 383. Asia. (3-0-3); on demand. The man-land relations characterizing this large and diverse region. An evaluation of a continent in the midst of change in terms of geographic potentials.

GEO 390. Weather and Climate. (3-0-3); I, II. Introduction to the physical elements of weather and climate; classifications of types and their distribution, with particular reference to the effects of climate on the earth's physical and cultural landscapes.

GEO 399. Selected Topics in Geography. (1-4 hours); on demand. Credit toward degree programs must be approved by student's advisor.

GEO 500. Soviet Union. (3-0-3); on demand. Systematic and regional study, with special attention given to the resource base. Appraisal of the agricultural and industrial strengths of the country; consideration of the effects of governmental policy and economic growth.

GEO 502. Geographic Factors and Concepts. (3-0-3); on demand. A general survey of the various aspects of the field of geography. Designed for beginning teachers and students not having a background for work in geography.

GEO 505. Conservation of Natural Resources. (3-0-3); I, II, III. Natural resources basic to human welfare; emphasis on lands, water, minerals, forests, and wildlife, including their relationships.

GEO 510. Urban Geography. (3-0-3); on demand. Origin and development of cities, urban ecology, central place theory, functional classifications, and a consideration of site, situation, and land utilization of selected cities.

GEO 540. World Manufacturing. (3-0-3); on demand. Interpretive analysis of the distribution and function of selected manufacturing industries; location theory, trends in regional industrial changes.

GEO 550. Geography for Teachers. (3-0-3); on demand. A study of the basic concepts, materials, and techniques for the teaching of geography.

GEO 590. Applied Meteorology. (3-0-3); on demand. Prerequisite: GEO 390. Weather elements, emphasis on meteorological skills; application to industrial, aviation, maritime and military needs.

GEO 599. Selected Topics in Geography. (1-4 hours); on demand. Credit toward degree program must be approved by student's advisor.

Geoscience

***GEOS 100. Physical Geology. (0-2-1); I, II.** An introductory study of common minerals, rock classes, and topographic and geologic maps.

GEOS 107. Introduction to Geoscience. (3-0-3); I, II, III. A general survey of earth; its astrophysical setting, its fluid portion, its solid part, its active processes, its history, the role of geology in preserving earth's resources. See SCI 107.

GEOS 199. Selected Topics. (1 to 6 hrs.); on demand.

GEOS 200. Coal Mining Geology. (3-0-3); I. Prerequisite: GEOS 100. A study of coal and coal-bearing rocks together with the application of geologic techniques of surface and underground mining.

GEOS 201. Historical Geology. (2-2-3); II.* Prerequisites: GEOS 100 and 107. Physical events in the earth's history; structure of sedimentary facies of each major stratigraphic subdivision; fossil record from the Precambrian period.

GEOS 240. Oceans. (3-0-3); II.* An elective semi-technical course providing a broad general background in the biological,

chemical, physical, and geological aspects of oceans and ocean basins; various types of pollution and future economic potentials of the oceans.

GEOS 250. Minerals and Rocks. (2-2-3); on demand.* Principal rock-forming and economic minerals and their occurrences.

GEOS 262. Mineralogy. (2-4-4); II in alternate years. Prerequisites: GEOS 100 or CHEM 102 and 102A or 112 and 112A. Physical and chemical properties of minerals, chemical, optical, and X-ray methods of identification; systematic survey of common mineral groups.

GEOS 276. Geologic Methods. (2-2-3); I in alternate years. Prerequisites: GEOS 201. Emphasis on basic laboratory and field techniques and instruments relevant to geologic studies.

GEOS 299. Selected Topics. (1 to 6 hrs.); on demand.

GEOS 300. Petrology. (2-2-3); II in alternate years. Prerequisite: GEOS 262. Modes of occurrence and origin in igneous and metamorphic rocks in relation to geologic processes; methods of identifying and classifying rocks.

GEOS 301. Economic Geology I (Metals). (3-0-3); on demand.* Prerequisites: GEOS 100 and 107. Formation and occurrence of metallic ore deposits. Economic factors affecting the mining industry.

GEOS 302. Economic Geology II (Non-metals). (3-0-3); on demand.* Prerequisites: GEOS 100 and 107. Formation and occurrence of non-metallic mineral deposits. Methods and equipment used in exploration. Sampling and evaluation of mineral properties. Uses and economic factors.

GEOS 315. Stratigraphy and Sedimentation. (2-4-4); I in alternate years.* Prerequisite: GEOS 201 or 410. Geologic correlation of stratal units; facies analyses, systematic analysis of sedimentary rocks, and biostratigraphic studies.

GEOS 325. Structural Geology. (2-2-3); I in alternate years.* Prerequisites: GEOS 201 and MATH 141 (or its equivalent). Mechanical properties of rocks and dynamics of rock deformation. Folds, faults, joints, cleavage, igneous structures.

GEOS 350. Geomorphology. (2-2-3); on demand. Prerequisite: GEOS 107 or GEO 100. Land surfaces; topographic form and geologic history; morphologic analysis.

GEOS 376. Environmental Geology. (3-0-3); I. Prerequisite: GEOS 100. Man's relationship to the geological environment. Geological hazards; mineral resources and the environment; urban geology.

GEOS 379. Invertebrate Paleontology. (2-4-4); I in alternate years.* Prerequisites: GEOS 201, BIOL 210 or GEOS 410. Invertebrate animals, their morphology, classification, paleoecology, phylogeny, and stratigraphic succession; faunal assemblages and research techniques.

GEOS 399. Selected Topics (1 to 6 hrs.); on demand.

GEOS 410. Geological History of Plants and Animals. (2-2-3); I. Prerequisites: BIOL 208 and 215 or GEOS 201. The evolutionary history of plants and animals throughout geological time.

GEOS 413. Micropaleontology. (2-2-3); on demand.* Prerequisite: GEOS 379. Collection, preparation, microscopic investigation, classification, paleoecology, and stratigraphic succession of microfossils.

GEOS 415. History of Geology. (2-0-2); on demand. Development of geological thought; important men and their contributions to our knowledge of the earth.

GEOS 420. Optical Mineralogy. (2-2-3); I. Prerequisite: GEOS 262. Behavior of light in isotropic and anisotropic minerals. Identification of minerals with polarizing microscope.

GEOS 460. Geological Oceanography. (3-0-3). Prerequisites: GEOS 315 and 325 or consent of instructor. Marine erosion, transportation and deposition, continental shelves, slopes, and ocean basins; marine environments. Shoreline processes and analyses.

GEOS 499. Selected Topics (1 to 6 hrs.); on demand.

*Field trip required or recommended.

German

GER 101. Beginning German I. (3-2-3). Fundamentals of structure: basic vocabulary, reading, writing, pronunciation and some conversation.

GER 102. Beginning German II. (3-2-3). A continuation of GER 101.

GER 201. Intermediate German I. (3-0-3). A review of grammar and pronunciation, with emphasis on reading of contemporary writings.

GER 202. Intermediate German II. (3-0-3). Prerequisite: GER 201. A continuation of GER 201.

GER 203. Expository German. (3-0-3). Techniques of reading for accurate information in expository writing in the natural and social sciences and the humanities.

GER 301. Grammar and Conversation. (3-0-3). Further development of language skills. Extensive experience in the language laboratory is required.

GER 302. Composition and Conversation. (3-0-3). A continuation of GER 301 with greater emphasis on stylistics.

GER 303. Advanced Expository German. (3-0-2). Extensive reading in the contributions of the German-speaking world to the fine arts, business, and special and exact sciences.

GER 310. The German Novelle. (3-0-3). The Novelle from Goethe to the present.

GER 311. German Literature to 1880. (3-0-3). A general of German literature from old High German to Hebbel and Ludwig.

GER 312. German Literature since 1880. (3-0-3). A survey of German literature from Hauptmann to the present.

GER 320. German Literature from 1750 to 1800. (3-0-3). A survey of the literature of Germany in the latter half of the eighteenth century.

GER 330. The German Lyric. (3-0-3). An intensive study of German lyric poetry from 1730 to the present.

GER 405. Linguistics and Language Teaching. (3-0-3). For German minors. Seminar for minors in various foreign languages; requires projects appropriate to the specialty of each.

GER 420. German Drama of the Nineteenth Century. (3-0-3). Major representative plays and their background.

GER 440. Literature of the Twentieth Century. (3-0-3). Major modern German writers.

GER 480. Independent Study. (3-0-3). A close reading of selected texts for their literary merit. Open only to students minor-ing in German. May be repeated once for credit.

Government

GOVT 101. International Student Orientation. (1 hr. credit); I. An informational and orientational course to familiarize the international student with the University and the community.

GOVT 141. Government of the United States. (3-0-3); I, II. A study of the Constitution; public opinion, interest groups, and political parties; the organization and operation of the national government; and domestic and foreign policy.

GOVT 242. State and Local Government. (3-0-3); I, II, III. The nature, organization, powers, and functions of American state and local governments.

GOVT 290. Introduction to Paralegalism. (3-0-3); II. Prerequisite: GOVT 141. A study of law and the legal system, the responsibilities and ethics of the paralegal, and the elements of the paralegal.

GOVT 300. Municipal Government. (3-0-3). The nature, organization, powers, and functions of American municipal governments.

GOVT 305. Introduction to Political Behavior. (3-0-3). Prerequisite: GOVT 141 or consent of the instructor. A study of political personality and attitudes, public opinion, voting behavior, political socialization, and culture as it relates to the overall understanding of the political process.

GOVT 310. Current World Problems. (3-0-3). Emphasis on United States domestic and international problems since World War II.

GOVT 315. Street Law. (3-0-3). Study of practical criminal and civil law which every citizen should know.

GOVT 330. Parliamentary Democracies. (3-0-3); I. Constitutional development, political organization, legislatures, administration, courts of the governments of the United Kingdom, France, and Germany.

GOVT 334. Soviet Union and Eastern European Governments. (3-0-3); I. Soviet political system; its contemporary ideological base, governing structures, and political processes; analysis of other governments in Eastern Europe.

GOVT 335. The Game of Politics. (3-0-3). A practical approach to the understanding of American government.

GOVT 340. Public Opinion and Propaganda. (3-0-3); II. The nature, formation, and role of public opinion, techniques, strategies, and effects of propaganda.

GOVT 343. American Political Parties. (3-0-3); I. Nature and role of parties and interest groups; party structure and development; functions of primaries; nomination system and campaign methods; public opinion and policy making.

GOVT 344. Kentucky Government. (3-0-3); I. The nature, organization, powers, and functions of Kentucky state government.

GOVT 348. The Legislative Process. (3-0-3); II. Prerequisite: GOVT 141 or consent of the instructor. Legislative behavior in the context of the political system; procedures and influences in the formation of public policy.

GOVT 350. Appalachian Politics. (3-0-3). A study of the politics and political institutions of the Appalachian region.

GOVT 352. Survey in Political Theory. (3-0-3); I. Early political ideas of Greeks, Romans, and Medieval Church; evolution of states and acquisition of sovereignty; contract theory; rise of liberalism, totalitarianism, and Marxist Socialism.

GOVT 360. United Nations and World Organizations. (3-0-3); II. Evolution of international organizations, from League of Nations to the United Nations; problems and issues of present world organization.

GOVT 366. Political Geography. (3-0-3); II. (See GEO 366.)

GOVT 370. Pressure Groups and Politics. (3-0-3); Prerequisite: GOVT 141 or consent of the instructor. Theory of interest groups; the role of interest groups in the political process; group ideology; techniques of political propaganda.

GOVT 375. The Teaching of Social Studies. (3-0-3); I. (See HIS 375.) (Does not count in the major or minor.)

GOVT 380. American Courts and Civil Rights. (3-0-3); I, II. Prerequisite: GOVT 141 or consent of the instructor. A study of the American court systems, jurisdictory, terminology, and an enumeration of man's rights and responsibilities in a democratic society.

GOVT 389. Honors Seminar. (3-0-3); I, II. Prerequisite: open only to juniors and seniors in the Honors Program. An analysis and discussion of political ideas, institutions, and policies. Topics will vary from semester to semester.

GOVT 390. Legal Research and Writing. (3-0-3), I. Prerequisite: GOVT 290. A study of legal materials, the development of research techniques, and case and statutory analysis, with extensive practice in writing legal memoranda and briefs for trial and appellate practice.

GOVT 391. Contract Law. (3-0-3). I. Prerequisite: GOVT 390. A study of contract law including formation, interpretation, performance, defenses, and damages. Attention to both the common law and to the Uniform Commercial Code provisions governing the sale of goods.

GOVT 392. Property Law. (3-0-3), II. Prerequisite: GOVT 390. A study of real and personal property law with an emphasis on related forms, documents, and procedures, including title examination and real estate transfers.

GOVT 393. Tort Law. (3-0-3), I. Prerequisite: GOVT 390. A study of civil wrongs, including intentional misconduct, negligence, and strict liability; defenses to liability; and damages with an emphasis on products liability and medical malpractice.

GOVT 394. Estate and Family Law. (3-0-3), I. Prerequisite: GOVT 390. A study of the law of wills, trusts, and estates; the law of marriage and divorce; child adoption and custody; spouse and child abuse; and juvenile law, with an emphasis on related forms, documents, and procedures.

GOVT 399. Selected Topics in Government. (1-4 hours); on demand. Credit toward degree program must be approved by student's advisor.

GOVT 435. Modern Asian Governments. (3-0-3). Background, development, ideologies, and structure of Asian governments, including Japan, China, India.

GOVT 439. Cooperative Study. (1-8 hours); I, II, III. Participation in supervised work experience in a government environment. Department approval is required for registration.

GOVT 444. The American Constitution. (3-0-3). Prerequisite: GOVT 141. A study of the origins, development, and current character of the U.S. Constitution, with particular attention to questions of separations of powers and federal-state relations.

GOVT 445. American Courts and Civil Liberties (3-0-3); I, II. Prerequisite: GOVT 141. A study of the federal and state court systems and of the Bill of Rights, with particular attention to questions of freedom of speech, religion, and association; due process of law; and of discrimination.

GOVT 450. International Relations. (3-0-3). Prerequisites: GOVT 141 or consent of the instructor. Survey of interstate relationships in theory and practice; concepts of power and its application; machinery of foreign policy making and enforcement; world politics and law; the world community.

GOVT 470. American Chief Executives. (3-0-3); on demand. Prerequisite: GOVT 141, 242, or consent of instructor. Analysis of executive position and leadership in federal, state, and local governments.

GOVT 476. Special Problems. (1 to 3 hrs.); on demand. Prerequisite: consent of the instructor. Original research project or readings in a particular subject area. Open only to government majors and minors.

GOVT 490. Civil Law and Procedure. (3-0-3); II. Prerequisite: GOVT 390. A study of civil procedure and the rules of evidence, with an emphasis on the forms documents and procedures related to investigation, discovery, trial, and appeals.

GOVT 491. Criminal Law and Procedure. (3-0-3), II. Prerequisite: GOVT 390. A study of the law of crimes against persons and property, defenses to prosecution, punishment, and of criminal procedure and evidence, with an emphasis on the Kentucky Penal Code and related forms and documents.

GOVT 495. Legal Internship. (3-0-3), I, II, III. Prerequisites: A 2.50 grade-point average in paralegal studies major courses and completion of GOVT 390, 391, 392, 393, 394, 490, and 491. The development of practical legal skills through actual work experience in a law office experience in law office researching, and preparing briefs, assisting in trial preparation, and observing judicial procedures.

GOVT 496. Frankfort Legislative Intern Program. (15 hrs.) Five months work-study experience with the Kentucky General Assembly. Candidate selection required.

GOVT 505. Politics of Ecology. (3-0-3); II. Prerequisite: GOVT 141 or consent of the instructor. A political analysis of the problems of the environmental crises.

GOVT 510. Law of Corrections. (3-0-3); on demand. See Corrections 510.

GOVT 539. Cooperative Study. (1-8 hours); I, II, III. Department approval is required for registration. Participation in supervised work experience in a government environment.

GOVT 540. Public Administration. (3-0-3); I. Prerequisite: GOVT 141 or consent of the instructor. Historical evolution; theory of organization and administration; personnel, financial, and legal aspects of public administration.

GOVT 541. Public Finance. (3-0-3); I. Prerequisites: ECON 201 and 202. See Economics 541.

GOVT 546. Public Personnel Administration. (3-0-3). Prerequisite: GOVT 540 or consent of the instructor. Manpower utilization, concepts, principles, and practice of the merit system; leadership; decision-making process; motivation of public employees.

GOVT 555. Internship in Public Affairs. (1 to 6 hrs.); on demand. Prerequisite: consent of the instructor. On-the-job work study experience in government.

GOVT 599. Selected Topics in Government. (1-4 hours); on demand. Credit toward degree program must be approved by student's advisor.

Graphics Communications Technology

GCT 102. Graphic Arts I. (1-4-3); I. A survey course covering the broad practices, techniques and problems of the graphic arts industry. Study and experience include history, design and layout, composition methods, image reproduction, screen process and bookcrafts.

GCT 103. Technical Drawing I. (1-4-3); I, II. A study of the principles and techniques of communicating ideas by means of graphic representation.

GCT 202. Graphic Arts II. (1-4-3); II. Prerequisite: GCT 102. An advanced course for students to apply the principles and competencies developed in the initial course. Units include automatic press operation (letter-press and offset), bindery operations, and darkroom procedures for photography and photographic screen process applications to the graphic arts industry.

GCT 203. Technical Drawing II. (1-4-3); I, II. Prerequisite: GCT 103. Breadth and depth are derived from the background of principles and techniques developed previously in technical drawing. Focus on working drawings.

GCT 204. Descriptive geometry. (2-2-3); I. Prerequisite: GCT 203. The historical and theoretical background for technical drawing and the study of graphic problem solving.

GCT 301. Tool Layout and Design. (2-2-3); II. The layout and design of machine tool jigs and fixtures in working drawing format.

GCT 302. Offset Lithography. (1-4-3); II. Prerequisite: GCT 202. The study of the history and fundamentals of photo offset lithography in the graphic arts industry. Experience is achieved in copy (hot or cold type), darkroom procedures (line copy and half-tone film developing), stripping/plate making, press operation, and other facets relating to the industry.

GCT 303. Technical Illustration. (2-2-3); II. Prerequisite: GCT 103 or 203. A study of the principles, practices and techniques used in industry to illustrate complex mechanisms in pictorial form.

GCT 305. Housing. (2-2-3); I. Prerequisite: GCT 103 or consent of instructor. Instruction centers around the problems, practices, and techniques of the housing industry, including historical development. Focus is residential design/drafting.

GCT 322. Photography. (1-2-2); I. Introductory course emphasizing the techniques and mechanics of photography as they apply to composition and darkroom procedures. Students will provide their own equipment and supplies (focusing camera, film, and enlarging paper).

GCT 350. Machine Composition I. (1-4-3); II odd. Prerequisite: GCT 202 or consent of instructor. An introductory course of theory and practical involvement relating to computer image generated type styles and sizes as indicated on a properly prepared layout

of the job elements. The course will cover background of direct entry, VDT, and newer machine principles as they are marketed and available to the graphic arts industry.

GCT 351. Graphic Duplication. (1-2-2); II. Prerequisite: for industrial education majors, GCT 202. A survey of the use of various methods and devices of the graphic arts currently used in the typical office or in-plant reproduction center. Experience will be gained in the preparation of direct and indirect methods of producing graphic images.

GCT 403. Machine Drawing and Design. (2-2-3); II. Prerequisite: GCT 301. Mathematical and graphic solution of problems involving the principles of machine elements. A study of motion of linkages, velocities, and acceleration of points within a link mechanism; layout methods for designing cams, belts, pulleys, gears and gear trains.

GCT 404. Architectural Drawing. (2-2-3); I. Prerequisite: GCT 305. A technical course covering the fundamental principles, techniques, and practices of residential and selected commercial architecture.

GCT 450. Machine Composition II. (1-4-3); II even. Prerequisite: GCT 350. A continuation/follow-up to GCT 350—Machine Composition I, concentrating on the advanced commands and intricate facets of computer image generated newspapers. A live job involvement to simulate an actual industrial experience in the classroom environment.

Health

HLTH 150. Personal Health. (2-0-2); I, II, III. (Course not accepted as credit toward a major or minor.) Principles and practices of healthful living: personal, family, and community as aspects of health.

HLTH 160. Introduction to Health. (2-0-2); I, II. Foundations of health, physical health, mental health, social health, environmental health.

HLTH 200. Introduction to Driver Education. (3-1-3); I, II, III. Emphasis upon effect of attitudes, emotions, and motivations on behavior. Review of research on accident causation and other relevant research. (Laboratory experiences an integral part of this course.)

HLTH 201. Administration of Driver and Traffic Education. (3-0-3); I, II. Prerequisites: HLTH 200 and 307. Organizational and administrative aspects of driver and traffic education as they relate to total school and other specialized programs. Historical and philosophical aspects, evaluation, related professional organizations, and occupational opportunities.

HLTH 202. Supervision of Safety Education. (3-0-3); I, II. Prerequisite: HLTH 200. Course examines the responsibilities, activities, and problems of administering safety programs; school bus transportation discussed. Thorough examination of operational procedures of safety educational programs on high school, college, city, and state levels discussed.

HLTH 203. Safety and First Aid. (3-0-3); I, II, III. Safety education and accident prevention program in school, industry, and public service; Red Cross Standard, Advanced, and Pre-Instructor First Aid.

HLTH 204. Instructor First Aid. (1-0-1); I, II. Prerequisites: Current Red Cross Advanced First Aid Certificate and permission of instructor. Red Cross First Aid Instructor Training Course.

HLTH 205. Mental Health. (3-0-3); I, II, III. Prerequisite: PSY 154. Models of man, philosophy of life, standards of mental health, social factors in mental illness, stress and its effect, parent-child relations, and school problems.

HLTH 300. Health in the Elementary School. (2-1-2); I, II, III. Prerequisite: admission to teacher education program. Elementary school health program; educational theory and methods

as applied to health teaching on elementary school level. (Laboratory experiences an integral part of course.)

HLTH 303. Community Health. (3-0-3); I, II. Principles and practices of health as applied to community; nature of community, problems of community health, community health education.

HLTH 304. Health in the Secondary School. (2-1-2); I, II. *Prerequisite:* admission to the teacher education program. Secondary school health program, educational theory and method as applied to health teaching on secondary school level. (Laboratory experiences are integral part of course.)

HLTH 306. Methods of Teaching Driver and Traffic Education. (3-0-3); I, II. *Prerequisite:* HLTH 200. Designed to give the student an understanding of specifics of classroom instruction in various subject matter fields. Selection of presentation and evaluation techniques based on recognized course objectives.

HLTH 307. Intermediate Driver Education. (2-2-3); I, II, III. *Prerequisite:* HLTH 200. Teaching student how to teach others to drive. Discussion of all levels of organization and appropriate teaching procedure. (Laboratory experiences are integral part of course.)

HLTH 320. Elements of Nutrition. (3-0-3); I, II, III. (Same as HEC 320.)

HLTH 360. Family Health. (3-0-3); I, II, III. Family and family living; nature of family, love, marriage preparation, marriage, family living.

HLTH 400. Advanced Driver Education. (3-0-3); I, II, III. *Prerequisites:* HLTH 200 and 307. Analysis of psycho-physical problems of human behavior as it relates to safety and driver education.

HLTH 419. Emergency Medical Techniques. (5-1-6); I, II. *Prerequisite:* HLTH 203. Development of skills in recognition of symptoms of illness and injuries and proper procedures of emergency care. Reliance placed heavily on demonstration and practice as teaching method. (Laboratory experiences are integral part of course.)

HLTH 475. The School Health Program. (3-0-3); I. All aspects of elementary and secondary level school health: philosophy, organization and administration, environment, services, education, evaluation.

HLTH 508. Principles of General School Safety. (3-0-3); I, II. *Prerequisite:* senior or graduate student. Review of principles and practices in establishing and maintaining a healthful and safe school environment.

HLTH 518. Use and Abuse of Drugs. (3-0-3); I, II, III. Designed to survey field of psychoactive drugs with emphasis on behavioral effects of these agents.

HLTH 576. Special Problems in Health. (1 to 3 hrs.); I, II. *Prerequisite:* upper division or graduate classification. Designed to meet special needs of individual students. Intensive study of approved specific problems from area of health, physical education, and recreation, under direction of instructor.

HLTH 599. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in health. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

History

HIS 130. Man and His World. (3-0-3); I. Man throughout history; his socioeconomic, cultural, and political contributions within his environment and his relationship with others. (Open only to elementary and special education majors).

HIS 131. Intro. to Civilization I. (3-0-3); I, II, III. From early man to the end of the religious wars.

HIS 132. Intro. to Civilization II. (3-0-3); I, II, III. From the Age of Reason to the Atomic Age.

HIS 140. Progress of American Democracy. (3-0-3); II. This course traces the concept of democracy from the frontier in colonial America to the cities of modern times. (Open only to elementary and special education majors).

HIS 141. Intro. to Early American History. (3-0-3); I, II, III. A survey of the basic tenets of American life from the Age of Discovery to the War Between the States.

HIS 142. Intro. to Recent American History. (3-0-3); I, II, III. A continuation of History 141, culminating with today's social and economic problems.

HIS 320. America in the Nuclear Age. (3-0-3); I, II, III. The diplomatic history of the United States since the start of the atomic age in 1945. The focus upon the relations of the superpowers, America and the Soviet Union, as they engage in an evermore dangerous nuclear arms race.

HIS 324. The New South. (3-0-3); II. A study of the origins of the twentieth century South.

HIS 325. The Old South. (3-0-3); I. The growth of southern sectionalism and the development of regional characteristics.

HIS 326. The Civil War and Reconstruction. (3-0-3); I. The role of the Southern states in the rebirth of the American nation.

HIS 327. The Negro in American History. (3-0-3); I. The origin of African slavery in America to its demise in the Civil War.

HIS 328. The Negro Faces Freedom. (3-0-3); II. The revolt of the American Negro in an effort to make legal freedom an actuality and to gain a position in the life of the nation.

HIS 329. Genealogy and Family History. (3-0-3); I. The techniques of tracing ancestors, combined with a study of the "common man," thus individualizing American history.

HIS 330. Ancient History. (3-0-3); I. The rise of civilization, with emphasis on the cultural contributions of the Greeks and Romans.

HIS 331. Historical Background of the Bible. (3-0-3); I. Consideration of the Bible as the most important single source for the study of ancient Mediterranean history and cultures and the foundation of Western Civilization.

HIS 332. Christianity and Its World. (3-0-3); II. A study of the relationship between Christianity and its environment from its origins to the present.

HIS 333. Medieval Europe. (3-0-3); II. Western man from the collapse of Rome to the Renaissance of the sixteenth century.

HIS 334. The Renaissance and Reformation. (3-0-3); I. A social and intellectual history of the beginning of the modern world.

HIS 335. Revolutionary Europe, 1648-1815. (3-0-3); II. Europe from the Age of Absolutism to the overthrow of the Napoleonic Empire.

HIS 338. Nineteenth Century Europe. (3-0-3); I. The political isms, nationalistic trends, and unification movements leading to World War I.

HIS 342. The Age of Jackson. (3-0-3); II. Analysis of national, political, and social movements of our westward trek, when America sought compromise and found Civil War.

HIS 343. History of Appalachia. (3-0-3); I, II, III. A study in historical perspective, of the people who have resided in and events that have taken place along the spine and slopes of the Appalachian mountains.

HIS 344. A History of Kentucky. (3-0-3); I, II, III. Colonial birth to the creation of the Commonwealth, with emphasis upon its constitutional and social development.

HIS 345. The American Frontier. (3-0-3); II. The Westward Movement in the shaping of American life and institutions.

HIS 346. Violence in America. (3-0-3); II. An analysis of a series of primary and secondary sources that illustrate political, economic, racial, ethnic, personal, and terrorist violence in America.

HIS 347. The American Indian. (3-0-3); I. The historical development of the native Americans from their entrance into this hemisphere down to the present day.

HIS 348. Sports in History. (3-0-3); I, II, III. Beginning with the ancient Greeks and Romans, the course moves through the Middle Ages, the Renaissance, and Reformation to the modern world. The class stresses the development of sports in the United States.

HIS 349. Vietnam and Watergate: Kennedy, Johnson, Nixon. (3-0-3); II. An intensive study of the Vietnam War and the Watergate scandal in the context of domestic and foreign policy developments in America since 1945.

***HIS 350. Religion in American History. (3-0-3); II.** Religion in all facets of American history; cultural, secular, and institutional. The role of religion in the molding of our nation.

HIS 351. England to 1660. (3-0-3); I. The political, social, and economic institutions of England to the fall of the Puritan Commonwealth.

HIS 352. England Since 1660. (3-0-3); II. A history of England from the Restoration to the rise of the British Commonwealth.

HIS 353. Russia to 1917. (3-0-3); I. Russia from Kievan times to the overthrow of the Romanov dynasty.

HIS 354. Russia since 1917. (3-0-3); II. A detailed history of Soviet Russia from the revolution to the Cold War.

HIS 363. History of Witchcraft. (3-0-3); I, II, III. A survey of witchcraft and the occult from ancient times to the contemporary.

HIS 366. The Middle East. (3-0-3); I. A survey of the Moslem World beginning with the great surge of the eighth century and culminating in the present Middle Eastern situation.

HIS 370. African History. (3-0-3); II. The early African states, the slave trade era, the rise and fall of the Imperial Empires, and post-independence events.

HIS 375. The Teaching of Social Studies. (3-0-3); I. *Prerequisite: open only to majors and minors in the social sciences with a minimum of 18 credit hours.* This course will demonstrate methods for organizing a teaching unit, using original courses, developing critical thinking, facilitating inquiry learning, integrating the social studies, and evaluating student performance. (Does not count in a major or minor.)

HIS 379. Latin American History. (3-0-3); II. The Indian background, the rise and fall of the Spanish and Portuguese Empires, and the major events since independence with concentration upon the major states.

HIS 382. War in the Modern World. (3-0-3); I. The origins, course, and results of a century of total war and its effect upon the social, cultural, and economic life of the world.

HIS 385. Technology and America. (3-0-3); II. Technology in the modern world; its development as a response to the social, political, and economic forces.

HIS 387. "Herstory": Womanhood and Civilization. (3-0-3); I. The experiences and thoughts of women who have played outstanding roles in the social, political, and economic development of civilization.

***HIS 388. History of Corrections. (3-0-3); I.** (See CORR 388.)

HIS 389. Honors Seminar. (3-0-3); Prerequisite: open only to juniors and seniors in the Honors Program. An analysis and discussion of the philosophies of world history; their origins and effects.

HIS 399. Selected Topics in History. (1-4 hours); on demand. Credit in pursuit of degree programs must be approved by student's advisor.

HIS 540. Colonial America. (3-0-3); I. The nation from the Age of Discovery to the Revolutionary War.

HIS 541. American Revolution and Federal Period. (3-0-3); II. A continuation of 540 covering the period from the American Revolution to the Era of Good Feelings.

HIS 543. The United States. 1876-1900. (3-0-3); II. Emphasis is placed upon the rise of big business with its resultant epoch of America as a world power.

***HIS 544. Kentucky Historical Tours. (3-0-3); I, II.** Provides students with an opportunity to see, hear, and read about

Kentucky's exciting historical places. (Does not count toward a master's degree in history.)

HIS 545. The United States, 1900-1939. (3-0-3); I. The American people from the Progressive Period through the New Deal.

HIS 546. The United States, 1939-Present. (3-0-3); II. America from World War to world leadership. Emphasis is placed upon the resultant social problems.

HIS 548. United States Foreign Relations. (3-0-3); I. A survey designed to acquaint the student with the foreign relations of the United States from its conception to our present role in the United States.

HIS 549. American Life and Thought. (3-0-3); II. A survey of the American intellectual heritage from Puritanism to the "mod" world.

HIS 550. The World 1914-1939. (3-0-3); I. A study extending from World War I to the outbreak of the Second World War with special emphasis on communism, facism, and nazism.

HIS 552. The World, 1939 to the Present. (3-0-3); II. A detailed study of World War II and the aftermath of a world divided.

HIS 558. The Slavery Controversy. (3-0-3); II. The issues growing out of differences concerning slavery within voluntary societies.

***HIS 576. American History; Directed Readings. (1 to 3 hrs.); I, II, III.** *Prerequisite: open only to history majors and minors with permission of the chairman.*

***HIS 577. European History; Directed Readings. (1 to 3 hrs.); I, II, III.** *Prerequisite: open only to history majors and minors with permission of the chairman.*

***HIS 578. Non-Western History; Directed Readings. (1 to 3 hrs.); I, II, III.** *Prerequisite: open only to history majors and minors with permission of the chairman.*

HIS 599. Selected Topics in History. (1-4 hours); on demand. Credit in pursuit of degree programs must be approved by student's advisor and history chairperson.

**These courses are not to be counted as part of the teaching or non-teaching major and minor.*

Home Economics

HEC 101. Orientation for Home Economics Profession. (1-0-1); I. The study of the philosophy of home economics as a discipline. Development of knowledge of all subject matter areas and career opportunities in home economics.

HEC 103. Interior Graphics I. (1-4-3); I. Principles and techniques of drafting. Communication of design ideas by graphic representation of plans and perspectives. Introduction to computer-assisted design system.

HEC 104. Interior Graphics II. (1-4-3); II. *Prerequisite: HEC 103. or consent of instructor.* Continuation of previous drafting course, giving broader depth and scope to skills and knowledge in graphics. Experience on computer-assisted design system.

HEC 130. Elementary Food Preparation. (2-3-3); I, II. Fundamental principles of food preparation. Efficient methods of preparation stressed in laboratory practice. Knowledge gained of nutritional food values and food characteristics as they relate to preparation techniques.

HEC 132. Foodservice Operations. (2-2-3); I. Taught alternate years. Survey of the types of commercial and institutional food service organizations and their characteristics. Menu planning, sanitation, and safety relating to the preparation and service of food. Federal, state, and local regulations/inspection procedures.

HEC 136. Dining Room Procedures and Beverage Control. (2-2-3); I. Taught alternate years. Principles and practices

of food and beverage management. Principles of dining room service, supervision, equipment, personnel responsibilities, and customer relations. Beverage control: purchasing, receiving, storing, and issuing procedures.

HEC 141. Introduction to Textiles and Clothing. (2-3-3); I, II. An introduction to properties of yarns, fabrics, and finishes as related to use in clothing. Basic principles of clothing construction, selection, alteration and fitting of commercial patterns. Special emphasis will be placed on current technological trends in selection, use and care of sewing equipment.

HEC 200. Family Perspectives. (3-0-3); I. Includes the changing roles of all family members' adjustments needed in marriage: family functions through the eight stages of family life cycle.

HEC 201. Principles of Nutrition (3-0-3); I. Basic description of the elements of human nutrition, their function in the body, and food sources. Guide for healthy nutritional practices and nutritional needs throughout the life cycle.

HEC 220. Introduction to Interior Design, (2-2-3); I. Taught alternate years. Prerequisite: HEC 104. Study of the principles and elements of design with emphasis on color and lighting. Study of furniture selection and arrangement.

HEC 231. Meal Management. (2-2-3); II. Prerequisite: HEC 130. Food for the family and consumer is studied in relation to basis for selection, comparative costs, nutritional values, storage requirements, and aesthetics of meal planning and service.

HEC 233. Essentials of Clinical Dietetics. (2-2-3); I. Taught alternate years. Prerequisite: HEC 201. Utilizes a systems approach to identify assessment, planning, implementation and evaluation tasks in relation to nutritional care. Examines and defines the process of nutritional counseling and the basic roles of the clinical dietitian.

HEC 234. Computer Assisted Food Service Management. (2-2-3); I. Prerequisites: HEC 130, 132, 201, 231. A systems approach, including the utilization of software for nutritional analysis, menu planning, food cost accounting, and inventory control.

HEC 241. Clothing Production Studio. (2-3-3); I, II. Prerequisite: HEC 141 or consent of instructor. Advanced construction and basic tailoring. Innovative and couture techniques.

HEC 250. Visual Merchandising. (2-2-3); I, II. A study of the objectives, principles, and methods of visual merchandising. Emphasis is placed on the visual merchandising function within a retail store. Students design window displays and select interior display fixtures for retail stores.

HEC 251. Residential Equipment. (3-0-3); on demand. Principles and practical experience acquired in selection, use, and care of equipment; development of demonstration skills of consumer products and equipment.

HEC 252. Problems in Interior Design. (2-2-3); II. Taught alternate years. Involves the study of practical experience in selection, arrangement, and presentation of colors, fabrics, furnishings, and cost estimates for a client. Lecture, laboratory, field trips.

HEC 280. Apparel Analysis. (3-0-3); II. A study of the design principles on which apparel design is based, fashion terminology, quality manufacturing methods, and wardrobe planning. Clothing requirements for all stages of the life cycle, including clothing needs of the physically handicapped, are studied.

HEC 290. Introduction to the Apparel Industry. (3-0-3); I. A study of the organization and operation of the fashion industry. Includes the history of the European and American fashion industries, designers, fiber and fabric producers, apparel and accessory manufacturers, fashion market centers, and fashion publications.

HEC 327. Maternal, Infant, and Child Nutrition. (3-0-3); I. Taught alternate years. Prerequisite: HEC 201. Addresses nutritional needs during pregnancy, lactation, infancy, and early childhood. Clinical experience required in health care facilities. Selection, application, and evaluation of nutritional data concerned with infancy and child growth.

HEC 330. Quantity Food Purchasing. (3-0-3); I. Taught alternate years, or concurrently with HEC 334. Institutional purchasing; considers principles and methods of purchasing food and supplies for commercial and institutional food service units with emphasis on specifications, standards, inventory, and factors affecting quality and cost control.

HEC 332. Field Experience in Home Economics. (1 to 4 hrs.); I, II. Field training in home economics arranged with consent and supervision of the instructor. Student is visited on the job.

HEC 333. Diet Therapy. (2-2-3); II. Taught alternate years. Prerequisites: BIOL 332, HEC 201, 233. The role of diet in the prevention and treatment of disease. Course will address dietary modifications, menu writing for modified diets, nutritional analysis, and nutritional needs during the life cycle. Clinical experience in health care settings.

HEC 334. Quantity Food Preparation. (2-5-3); I, II. Prerequisite: HEC 130, HEC 231. Principles and techniques of quantity food preparation. Use of standardized recipes and institutional equipment. Must be followed by HEC 337 in next semester.

HEC 335. Equipment and Facilities Planning. (3-0-3); II. Taught alternate years. Selection of equipment and furnishings to meet the needs of different types of food services in relation to function, maintenance, efficient layout, specifications, and material. Each student plans and designs a menu and physical layout for a food service unit.

HEC 336. Institutional Organization and Management. (3-0-3); II. Taught alternate years. Prerequisites: MNGT 311, HEC 334, 337. Administrative functions within a food service system. Emphasis on management responsibilities, budgeting, legislation, labor unions, time management, conflict management, personnel problems, and food delivery systems.

HEC 337. Food Production Management. (1-6-3); I, II. Prerequisite: HEC 334 preceding semester. Principles of scheduling and supervision of food production.

HEC 340. Intermediate Textiles. (3-0-3); I. Prerequisites: CHEM 101 and 101A. A study of textile products and the raw materials from which they are made. The influence of fiber, yarn, construction method, coloration method, and finish are examined in detail. Basic laboratory identification and performance tests are included.

HEC 341. Flat Pattern Design. (1-3-2); II. Taught alternate years. Prerequisites: HEC 241 or consent of instructor. Pattern making and fitting through the use of a sloper and flat pattern design techniques. Original designs will be created and constructed.

HEC 343. Textiles for Interiors. (2-2-3); I. Prerequisite: HEC 340. or consent of instructor. A study of the selection and evaluation of textile products used in commercial and residential interiors. State and federal regulations, codes, and testing procedures for commercial textiles are emphasized.

HEC 344. Historic Costume. (3-0-3); I. The development of costume through the ages as an expression of social, economic, and cultural life of the time, and as a contribution to current fashion.

HEC 351. Housing. (2-2-3); II. Historic development of housing in the United States. Implications for housing from social and economic changes. Trends in the field of housing.

HEC 355. Child Growth and Development. (3-2-3); I. Taught alternate years. Behavioral characteristics in growth and development; positive approach to child guidance; importance of the role of parents and child care givers. Directed practicum in observation of and participation with pre-school children.

HEC 356. Preschool Administration. (3-2-3); II. Taught alternate years. Prerequisite: HEC 355. The study of the organization and administration of pre-school programs; role of parent-hood education; supervised experiences in planning and guiding children's activities in a pre-school program.

HEC 363. Human Resource Management. (3-0-3); II. Prepares consumers for rational decision-making as it relates to the individual's and family's resources of time, money, and energy.

Consumer's roles guidelines in the economy and practices for controlled consumption of resources. Appraisal of all segments of consumer goods and services.

HEC 370. Residential Interior Design, Studio I. (3-2-3); I. Prerequisite: HEC 220. Planning a residential interior from problem through analysis of a family's needs for each area; the design idea from conception through finished presentation drawings. Emphasis on interior components, products available, and functional and economical design.

HEC 381. History of Interiors I. (3-0-3); I. A study of the development of furnishings, interiors, and architecture from ancient history through the 18th century.

HEC 382. History of Interiors II. (3-0-3); II. The development of furniture styles and interiors and the influence of architecture from American colonization through the twentieth century. Miscellaneous styles are studied.

HEC 410. Therapeutic Nutrition. (2-2-3); II. Taught alternate years. Prerequisites: BIOL 332, CHEM 301, HEC 201, 233, 333. Variation in the nutrient supply and demand in various health and disease states. The role of appropriate dietary intervention and nutritional support in the clinical setting. Clinical experience required in health care facilities.

HEC 434. School Lunch Seminar. (1 hr.); on demand. Techniques and problems related to the school lunch program.

HEC 437. Advanced Nutrition. (3-0-3); II. Taught alternate years. Prerequisites: BIOL 332, CHEM 301, HEC 201, 233, 333, 410. An in-depth review of the pathways of absorption, digestion, and metabolism of essential nutrients.

HEC 438. Experimental Foods. (2-2-3); II. Taught alternate years. Prerequisite: HEC 130 and CHEM 201. Principles of sensory evaluation of food; review of principles of food science and experimental corroboration.

HEC 450. Fashion Merchandising Techniques. (3-0-3); II. Prerequisite: HEC 290, *Introduction to the Apparel Industry*. A study of the unique characteristics of fashion merchandisers and fashion buyers with an emphasis on fashion merchandising techniques.

HEC 451. Residential Textiles and Furnishings. (2-2-3); I. Design principles applied to residential interiors; and floor plans; selection of residential interior textiles and furnishings will be emphasized.

HEC 454. Supervised Home Management Experiences. (4 hrs.); I. Prerequisite: HEC 231. Supervised home management experience for one-half semester. Opportunities for assuming responsibilities for making decisions and for applying principles of management in the use of time, energy, and money; social experience and group activities. Arrangements for residence must be made in advance.

HEC 460. Merchandise Display and Promotion. (2-2-3); on demand. Prerequisite: HEC 250 or consent of instructor. Advanced theory and application of window display and interior store display, with actual experience in designing, presenting, and executing displays.

HEC 470. Methods of Teaching Vocational Home Economics. (3-0-3); I. Prerequisites: junior and senior standing in home economics and admission to the teacher education program. Study of the history, organization, and administration of consumer and homemaking classes, gainful home economics programs, and home economics adult education programs; role of the advisor of Future Homemakers of America organizations, principles of learning and application through use of various teaching techniques and methods.

HEC 471. Seminar. (1-0-1); I. Identification of issues reflected in the current technical and professional literature, further understanding of the role and function of semi-professional and professional fields in home economics. Preparation of transition from the role of student to role of professional in home economics.

HEC 475. Contract Design, Studio II. (3-2-3); II. Taught alternate years. Prerequisites: HEC 220, 104. Planning and pres-

enting professional commercial interior designs. Emphasis on functional design, budgets, product research, lighting design, acoustics, contracts, and business procedures.

HEC 476. Special Problems. (1 to 3 hrs.); I, II, III. Supervised study of a problem in some phase of home economics chosen by the student on the basis of individual need or interest.

HEC 480. Historic Textiles. (3-0-3); on demand. Historic background and characteristics of textile fibers, weaves, motifs, and colors from prehistoric to modern times.

HEC 531. Nutrition Education. (3-0-3); on demand. The study of the application of basic principles of education applied to the teaching of nutrition. Lecture.

HEC 541. Tailoring Techniques. (1-4-3); I. Prerequisite: HEC 241 or consent of instructor. Individual fitting problems and the resulting pattern alteration methods necessary for the construction of a tailored garment as well as advanced hand tailoring and couture techniques. Construction of a suit or coat required.

HEC 542. Social-Psychological Aspects of Clothing and Textiles. (3-0-3); II. Taught alternate years. Prerequisite: 6 hrs. in clothing and textiles. Social, psychological, and economic factors in the selection and use of clothing.

HEC 543. Advanced Textile Testing. (1-4-3); on demand. Prerequisite: HEC 340. Advanced study of textile fibers and fabrics, with emphasis on trends in wear and end-use testing.

HEC 544. Dyes and Finishes. (2-2-3); on demand. Prerequisite: HEC 340. Types of dyes and finishes used currently on fibers and fabrics as they affect wear, care, and storage.

HEC 545. Clothing Design in Draping. (1-5-3); II. Taught alternate years. Prerequisite: HEC 241. Original garments created by draping on the dress form. Dress form will be constructed in the course. Taught alternate years.

HEC 555. The Child and the Family. (3-0-3); on demand. Environmental factors favoring family life and family interaction; stages of family life and the changing role of members.

HEC 557. Interior Decoration Projects. (1-4-3); on demand. A lecture laboratory class with emphasis on projects for the home that can be taught in vocational, occupational, and adult classes or in the home.

HEC 573. Curriculum Development in Home Economics. (3-0-3); I. Development of secondary and post-secondary home economics programs; review of home economics curriculum at all grade levels for useful and gainful programs; a critical survey of resources; development of competency-based curriculum in the five areas of home economics.

HEC 590. Creative Foods. (1-4-3); on demand. The study and preparation of gourmet foods. Emphasis on foods from different cultural backgrounds and geographical regions. Arranged laboratories.

HEC 592. Foods for Special Occasions. (1-4-3); on demand. Prerequisite: permission of instructor and/or one food preparation course. A lecture-laboratory course with emphasis on planning, preparing, and serving foods for special occasions, including special diets, meal service, special equipment, and various budget levels. Arranged laboratories.

Industrial Education and Technology

IET 100. World of Technology. (3-0-3); I. An introduction to basic concepts of industry. The identification of the major industries and the development of an understanding of their impact upon society.

IET 111. Basic Wood Technics. (2-2-3); I, II. This is the beginning course in wood technics, consisting of theory and application with particular emphasis on individual and industrial values of wood.

IET 160. Introduction to Power and Fluid Mechanics. (2-2-3); I, II. Beginning instruction in energy sources and fluid sys-

tems. Steam engines, steam turbines, diesel engines, spark-ignition engines, and exhaust emissions are studied.

IET 211. Advanced Wood Technics. (2-2-3); I, II. Prerequisite: IET 111 or consent of instructor. This is a continuation of basic wood technics. It consists of advanced techniques and practices reflecting the wood industries through the study and use of theory, experimentation, and evaluation.

IET 222. General Crafts. (1-2-2); on demand. A survey of several craft media, involving a study of the common tools, skills, processes, and procedures in clay, glass, plastics, metal, stone, leather, and wood. Industrial applications of craft principles and processes will also be investigated.

IET 260. Hydraulics and Pneumatics. (2-2-3); I. Introductory course in the design and analysis of power transfer devices utilizing hydraulics and pneumatics, with emphasis on robotics applications.

IET 261. Power Mechanics. (2-2-3); I. Control mechanisms are studied along with rocket engines, various forms of jet engines, and advanced power systems.

IET 311. Design and Construction. (1-4-3); I. Prerequisite: IET 211. Students design, plan, construct, and finish an appropriate product requiring knowledge of advanced principles and techniques in wood technology.

IET 317. Time and Motion Study. (2-0-2); I, II. Process charts, analysis of methods, materials, tools, and equipment of industry for profit improvement.

IET 319. Quality Control. (3-0-3); I, II. Analytical and statistical inference techniques for process and manufacturing product control. Development of process capabilities and derivation of process limit graphs.

IET 320. Supervisory Practices. (3-0-3); I, II. Development of various direct and indirect supervisory techniques commonly used in management positions with special emphasis placed on those unique to manufacturing industries.

IET 321. Wood Laminating and Turning. (2-2-3); on demand. Theory and practice of laminating and wood turning, with emphasis given to industrial and school shop practices. Introduction to tools, equipment, and their safe operations.

IET 327. Applied Industrial Management. (3-0-3); on demand. A study of basic industrial management practices and procedures. Designed to serve the technician, first-line supervisor, or lay management individual to provide an awareness rather than to prepare a practitioner of management.

IET 330. Industrial Design. (1-2-2); I, II. Product design with emphasis upon modular systems, consumer relations, and manufacturing capabilities. Individual and group activities using interdisciplinary and systems design techniques.

IET 360. Internal Combustion Engines I. (2-2-3); on demand. Study of operating cycle and maintenance procedures on spark ignition, diesel, and wankel engines.

IET 362. Fluid Power. (2-2-3); on demand. Prerequisite: IET 262. To gain an in-depth knowledge of fluid systems as they are used in modern industry.

IET 364. Career and Vocational Guidance. (3-0-3); on demand. Study of the concept of career education and to explore the new emerging role of the guidance counselor in regard to problems that exist in our present educational system, innovative concept of career education, the counselor and classroom teacher's responsibility within the framework of career education, evaluation of career education, and exploring future implications for developing positive attitudes and values for work for all students, including the disadvantaged and handicapped.

IET 365. Instrumentation. (2-2-3); on demand. Techniques of properly instrumenting test calls with such devices as pilot tubes, manometers, and electronic devices.

IET 381. Related Science, Mathematics, and Technology in Occupations. Offered only through written examination. (0-0-6); on demand. Courses will be offered only through a

scheduled examination. (Written, performance, and oral examinations in the field of specialization that the candidate is preparing to teach.)

IET 382. Manipulative Skills in Occupations. Offered only through technical competence examinations. (0-0-6); on demand. Courses will be offered only through a scheduled examination. (Written, performance, and oral examinations in the field of specialization that the candidate is preparing to teach.)

IET 383. Knowledge of related subjects in occupations—offered only through oral examinations. (0-0-6); on demand. Courses will be offered only through a scheduled examination. (Written, performance and oral examinations in the field of specialization that the candidate is preparing to teach.)

IET 390. Principles of Industrial Education. (3-0-3); I, III. The history of industrial education, types of curriculum, types of schools, and level of industrial education programs are given emphasis as are vocational guidance and competency based occupational preparation.

IET 391. Trade and Technical Analysis Techniques. (2-0-2); on demand. The techniques used in analyzing a trade and jobs within a trade, in discovering the teachable content and the method of using scientific analysis in the development of course outline.

IET 392. Technical Curriculum and Media Development. (2-2-3); I, III. Emphasis is placed on developing competency based objectives for technical subject matter and on developing a variety of instructional media appropriate for technical curricula.

IET 393. Methods in Vocational Industrial Education. (3-0-3); on demand. Basic principles of teaching and learning with practical applications of procedures used in industrial education programs.

IET 394. Student Teaching in Vocational Industrial Education. (4 to 8 hrs.); on demand. Prerequisite: IET 393, admission to teacher education program. Each student is assigned to an approved student teaching center offering comprehensive teaching experiences at the preparation-industrial education level. Directed to observations and supervised teaching in approved area vocational school or an extension center in the trade and area in which the certificate is desired.

Candidates for the associate degree will complete a minimum of 45 hours of supervised student teaching, 60 hours of directed observation, and 20 hours of participation. This experience carries four hours of credit.

Candidates for the bachelor's degree complete a minimum of 90 hours of supervised student teaching, 120 hours of directed observation, and 40 hours of participation. This experience carries eight hours of credit.

IET 395. Special Problems in Vocational Industrial Education. (1 to 3 hrs.); I, II, III. Prerequisite: permission of the instructor prior to registration. Individual problems dealing with specific areas in the teaching field of the student. Opportunity of pursuing a technical problem in a laboratory orientation is provided. Conferences with the instructor are scheduled as needed.

IET 398. Supervised Work Experience. (1 to 9 hrs.); I, II, III. Prerequisite: 20 hours in major department and consent of the department head prior to registration. An enrichment program which will give experience in an occupational area which is not possible to provide in a classroom setting. Student will work under supervision in an approved organization for a period of time specified by his or her major department. Credit will be commensurate with the amount of time worked. The student will be supervised by faculty from the major department. A representative of the cooperating organization will be directly responsible for the work experience of the student and will make a written evaluation of the student periodically.

IET 400. Seminar in Industrial Education—Orientation and Exploration Levels. (4-0-4); on demand. Prerequisite: four years of successful teaching experience at the industrial educa-

tion preparation level. Seminar designed for individuals who have four years of successful teaching experience and desire dual certification to include industrial education at the orientation and exploration levels.

IET 401. Seminar in Industrial Education—Preparation Level. (4-0-4); on demand. Prerequisite: *four years of successful teaching at the industrial education orientation and exploration levels.* Seminar designed for individuals who have four years of successful teaching experience at the industrial education orientation and exploration levels and desire dual certification to include industrial education at the preparation level.

IET 411. Wood Technics. (2-2-3); I. Prerequisite: *IET 111, 211.* A study of the problems and process of the major wood industries in the United States. Various industrial processes, application, and testing are utilized in mass production and individual projects.

IET 422. Industrial Safety Standards and Enforcement. (3-0-3); II. A study of industrial safety codes, standards, regulations, and enforcement procedures. Explanations of worker safety as related to attitude and production. Review of current laws regulating safety and those agencies related to enforcement and training.

IET 460. Internal Combustion Engines II. (2-2-3); on demand. Prerequisite: *IET 360.* Detailed study of exhaust emissions and the gas turbine engine.

IET 463. Heating, Ventilating, and Air Conditioning. (2-2-3); on demand. A study of the ventilating and heating techniques in modern industrial application. Also includes industrial air conditioning and refrigeration.

IET 472. Basic Industries Practicum. (1-2-2); II. Prerequisite: *Upper division standing in industrial education.* A study of basic industry through lecture- discussion, reports, and field trips. Emphasis will be placed on contact with local industry through a minimum of seven field trips.

IET 475. Teaching Methods in Industrial Education—Orientation and Exploration Levels. (3-0-3); II. Co-requisite, enrolled in IET 478—Supervised Teaching Practicum. Must be admitted to teacher education program. A study of the objectives of industrial arts and related behavioral changes; industrial arts curricular patterns and trends; selection and organization of subject matter, problem selection, and the project method of teaching; instructional materials and teaching aids; testing and evaluation; and professional growth.

IET 476. Special Problems. (1 to 3 hrs.); I, II, III. Prerequisite: *upper division standing; approval prior to registration.* Designed for the purpose of permitting a student to do advanced work as a continuation of an earlier experience or to work in an area of special interest.

IET 478. Supervised Teaching Practicum in Industrial Education—Orientation and Exploration Levels. (8 hrs.) Co-requisite, enrolled in IET 475—Teaching Methods in Industrial Education, and admission to the teacher education program. Each student is assigned to an approved student teacher center offering comprehensive teaching experience in the industrial education program at the orientation and exploration levels. Supervision will be provided by University faculty competent in industrial education at the orientation and exploration levels.

IET 496. Organization and Management of the Laboratory. (2-0-2); on demand. Prerequisite: *IET 393.* Principles of shop and class organization and management, including program planning and development of shops and laboratories; selecting and purchasing equipment and supplies; and organizing and administering the instructional program.

IET 497. Seminar in Vocational Industrial Education. (1-0-1); I. Current problems, issues, and trends in vocational education.

IET 520. Industrial Arts for the Elementary Teacher (3-0-3); on demand. Prerequisite: *formal admission to the teacher education program.* This course is designed as a means to develop professional and technical competencies of pre-service and in-service elementary school teachers so they may enrich and

strengthen programs of instruction by using industrial arts as both method and content.

IET 560. Foundations of Industrial Education. (3-0-3); on demand. Study of the philosophical positions underlying the development of industrial education; leaders, their influence and contributions; contemporary educational theories affecting the current programs of industrial education.

IET 571. Seminar for Industrial Education. (1-0-1); I, II. Participants will develop a further understanding of the underlying concepts of industrial education by participation in one or more programs followed by informal discussion. Faculty presentation will enrich the experience by raising real problems and issues confronting industrial education.

IET 590. Supervised Internship. (1 to 6 hrs.); I, II. Prerequisite: *approval prior to registration.*

A. To provide work experience in an occupational area. Student works under supervision in an approved position. Advanced credit commensurate with time worked, type of work, variety of work experience, and research paper. Maximum credit allowed in the internship will be six hours.

B. A person who chooses to do the internship in administration will be assigned to work in secondary, post secondary or higher education institution or for the State Bureau of Vocational Education in an administrative capacity approved by his advisor.

In each case, conditions will be agreed upon by employer, student, and graduate advisor prior to registration.

Journalism

JOUR 110. Introduction to Mass Communications. (3-0-3); I, II, III. Survey of history, functions, career openings, and interrelationship of newspapers, radio, television, other media, and attendant agencies.

JOUR 155. Broadcast Performance. (3-4-3); I, II. (See R-TV 155.)

JOUR 192. Technical Composition. (3-0-3); I, II, III. (See ENG 192.)

JOUR 201. News Writing and Reporting. (3-0-3); I, II, III. Gathering news from sources on and off campus; organizing and writing basic types of news items, some for campus newspaper.

JOUR 204. Copyreading and Editing. (3-0-3); I, III. Copy correcting, both on typed news copy and on video display terminals (VDTs); proofreading, headline writing, news selection, page layout.

JOUR 240. Writing for Broadcast. (3-0-3); I, II. (See R-TV 240.)

JOUR 285. Introduction to Photojournalism. (2-2-3); I, II, III. Lecture and laboratory, introduction to camera use, dark-room procedure, photo layout and practices in reporting news pictorially. For journalism majors and minors only. Camera rental fee for students without suitable camera. (Lab fee will be assessed each student.)

JOUR 301. Advanced News Writing and Reporting. (3-0-3); II, III. Prerequisite: *JOUR 201.* Advanced reporting including covering courts, police, governmental agencies. Interviewing skills, legal aspects of the press, and theories of social responsibility.

JOUR 306. Newspaper Graphics and Production. (3-0-3); I, II. Theoretical and practical study of the evolution of the graphic design, typography, and production of modern newspapers. Hands-on experience in photocomposition, layout, and production.

JOUR 310. History of Journalism. (3-0-3); I. Origins and development of American journalism as a profession, mainly through newspapers and their roles in history.

JOUR 344. Broadcast News and Public Affairs. (3-0-3); I. Prerequisite: *9 hours of undergraduate radio-TV or consent of faculty.* (See R-TV 344.)

JOUR 357. Sportscasting. (2-2-3); I. Basic philosophy and ethical consideration in developing sports reporting style in oral or

written presentation. Application of principles in play-by-play description of seasonal sports. (Cross referenced as R-TV 357.)

JOUR 358. Sports Writing. (3-0-3); I, II. Prerequisite:

JOUR 201. Philosophy and techniques in writing sports and sports analysis or commentary for print media. (Cross referenced as R-TV 358.)

JOUR 364. Feature Writing. (3-0-3); I, II. Researching, organizing, writing and marketing of non-fiction articles.

JOUR 382. Principles of Public Relations. (3-0-3); I. Purposes, methods, and responsibilities in the profession of public relations.

JOUR 383. Principles of Advertising. (3-0-3);

II. Advertising principles and practices.

JOUR 386. Photo Essay and Editing. (3-0-3); I. Photographic composition, selection, and production of pictures for various publications.

JOUR 387. Advanced Photojournalism. (3-0-3); II. Prerequisite: JOUR 285. In-depth study of photojournalism equipment, techniques, and style, including color photography. For journalism majors and minors only. Camera rental fee for students without suitable camera.

JOUR 399. Public Relations Workshop. (3-0-3); III. A hands-on workshop in preparing print-media public relations materials.

JOUR 464. Magazine Editing and Design. (3-0-3); II. Editing and the graphic design of magazines.

JOUR 465. Editorial Writing. (3-0-3); I. Purposes and methods of editorial writing, including ethics and values.

JOUR 482. Public Relations Practices. (3-0-3); II. Prerequisite: JOUR 382. Specific practices in carrying out campaigns in public relations.

JOUR 483. Advertising Design. (3-0-3); I. Study and application of methods of designing and producing advertisements. Primarily for print media, but includes television storyboards.

JOUR 501. Interpretative Reporting. (3-0-3); I. Prerequisite: six hours (200 or above) advanced credit in journalism, including one basic news-writing course. Writing in-depth analysis of current events using investigative research.

JOUR 504. School Publications. (3-0-3); III. Advisement of students in the production of school newspapers, yearbooks, and magazines; includes a complete review of journalism principles.

JOUR 505. Law and Ethics of the Press. (3-0-3); II. Prerequisite: six hours of advanced journalism credit. An examination of law as it affects publications.

JOUR 506. Community Newspapering. (3-0-3).

Community-newspaper editors and publishers to discuss reporting, editing, advertising, circulation, and management on community newspapers.

JOUR 558. Public Broadcasting. (3-0-3); II. Prerequisite: junior standing and consent of the faculty. (See Radio-TV 558.)

JOUR 560. Reviews and Criticism. (3-0-3); II. Evaluating and writing critical reviews of drama, literature, art, music, and restaurants for the mass media.

JOUR 565. Public Opinion and News Media. (3-0-3); I. Cultural, social, and psychological nature of public opinion and its influence on and by press, television, radio, and film; the nature of propaganda in advertising.

JOUR 583. Advertising Copy Writing. (3-0-3); II. Writing advertising headlines and copy for print and broadcast media.

JOUR 584. Psychology of Advertising. (3-0-3); I. Prerequisite: JOUR 383. Psychological strategy used in art, words, and graphics as persuasive advertising devices.

JOUR 591. Technical Writing I. (3-0-3); I, II, III. (See English 591.)

JOUR 592. Technical Writing II. (3-0-3); I, II, III. (See English 592.)

JOUR 599. Yearbook Workshop. (1-0-1); III. Planning, staffing, financing, and producing a high school yearbook.

Latin

LAT 101. Beginning Latin I. (3-2-3). Drill in the basic elements of Latin grammar, word study, and reading of simple Latin selections.

LAT 102. Beginning Latin II. (3-2-3). A continuation of 101.

LAT 201. Intermediate Latin I. (3-0-3). Selections from Catullus, Cicero, Horace, Pliny, Martial, Livy, and Ovid.

LAT 202. Intermediate Latin II. (3-0-3). Writings of Cicero; his life and influence.

LAT 301. Advanced Latin I. (3-0-3). Poets of the Augustan Age, together with the history of the period.

LAT 302. Advanced Latin II. (3-0-3). Further study of the poetry of the Augustan Age. Selections from Vergil's Aeneid.

LAT 401. Latin Literature I. (3-0-3). Selections from the works of Horace, Vergil, Catullus, and others. Rotation of course content allows students to repeat the course for additional credit.

LAT 402. Latin Literature II. (3-0-3). Selections from Livy, Tacitus, Suetonius, Caesar, and others. Rotation of course content allows students to repeat the course for additional credit.

Library Science and Instructional Media

LSIM 581. Individualized Learning Systems. (3-0-3); II, III. Introduction to basic individualized learning systems; how they are designed, produced, and utilized. Student shall design and produce examples of learning activity packets and programmed instructional materials. Technological applications for individualizing learning such as programmers and portable computers will also be covered.

LSIM 583. Producing Audiovisual Materials. (3-0-3); II, III. Production of various types of audiovisual materials with emphasis upon still photography (slides-prints), motion picture photography, audio production, and classroom television production.

LSIM 588. Educational Gaming and Simulation. (3-0-3); I, III. Introduction to the design, production, utilization, and evaluation of educational games and simulations. Student shall produce educational game and educational simulation of his or her own design which will be evaluated and revised by tryout with selected target groups.

LSIM 599. Library Media Workshop. (1 to 6 hrs.); on demand. Subject matter and length of time vary; prerequisites determined for each. May be repeated but not to exceed total of six hours.

Management

MNGT 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

MNGT 160. Introduction to Business. (3-0-3); I, II, III. Basic survey course. Management, business organization, marketing, retailing, accounting, banking, finance, risk, and insurance.

MNGT 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various management subjects will be presented periodically to supplement the basic course offerings in management. Credit toward degree programs must be approved by the student's advisor.

MNGT 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in MNGT 139 or of a nature similar to a sophomore status course.

MNGT 261. The Legal Environment of Business Organizations. (3-0-3); I, II. The forms of business organizations,

including sole proprietorships, partnerships, and profit and nonprofit corporations. The regulatory environment and legal constraints on organizations; the relationship between business and government in policy formation; and basic legal concepts.

MNGT 301. Principles of Management. (3-0-3); I, II, III. *Prerequisites:* ACCT 282 and ECON 202. History of management, the management process, the principles of management and their application in the operations of business. The fundamental concepts of management applied to such areas of business activity as organization, personnel, production, and research.

MNGT 306. Production Management. (3-0-3); I, II, III. *Prerequisite:* MNGT 301, MATH 160, and MATH 354. Organization and operation of production management within the on-going service and product organization are described and analyzed. Descriptive practices and techniques, including work measurement, facilities location, and layout are used in analysis and problem solution.

MNGT 310. Small Business Organization. (3-0-3); I. Aspects of management that are unique to small firms; economic and social environment in which small firms function; student practice in making decisions on problems facing managers of small businesses.

MNGT 311. Personnel Management. (3-0-3); I, II. *Prerequisite:* MNGT 301. Personnel management principles, job requirements; selection techniques; testing programs; facilitation of employee adjustment; wage and salary administration; legal aspects of labor relations; financial incentives.

MNGT 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

MNGT 362. The Legal Environment and Business Practices. (3-0-3); on demand. *Prerequisite:* MNGT 261. Business practices, emphasizing legal problem avoidance. Areas of the law which impact business success or failure; the Uniform Commercial Code, state and federal regulations, and laws.

MNGT 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various management subjects will be presented periodically to supplement the basic course offerings in management. Credit toward degree programs must be approved by the student's advisor.

MNGT 411. Labor Relations. (3-0-3); I, II. *Prerequisite:* MNGT 311. Historical development of the U.S. labor movement, and a comparative analysis with other western culture labor movements. Emphasis on developing insights into labor's point of view. An introduction to labor-management negotiations and grievance procedures.

MNGT 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

MNGT 463. Law and Ethics in Business. (3-0-3); on demand. *Prerequisites:* MNGT 261 and MNGT 362. The social responsibility of business and individuals in commerce. Value systems, externally or self-imposed, their development and operation.

MNGT 472. Business Policies and Problems. (3-0-3); I, II, III. *Prerequisites:* MNGT 301, MKT 304, or consent of instructor. Specific problems involved in the forming of consistent business policies and maintaining of an efficient organization. Actual cases used for discussions and preparation of reports for executive decision making.

MNGT 476. Special Problems in Management. (1 to 3 hrs); on demand. *Prerequisites:* senior standing and prior consent of head of department. Self-directed independent study on a specific problem, based on written proposal and justification submitted by student prior to registration. Each request will be considered on its own merit in relation to the special needs, interest, and abilities of the student.

MNGT 486. Management Internship Program. (3 to 12 hrs); on demand. *Prerequisites:* junior or senior standing and 12 hours in major area, with 2.5 GPA in major area. The internship program involves placement of students in positions in business comparable to those filled by professional career employees. Participants work under the supervision of high level officials possessing major departmental responsibilities.

MNGT 506. Operations Analysis. (3-0-3); on demand. *Prerequisite:* MNGT 306, MATH 160 and 354, or consent of instructor. Production and operations management are analyzed. Concepts and techniques used in the design, operation, and control of productive systems are studied.

MNGT 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

MNGT 556. Small Business Institute Field Project. (1-4-3); I, II. *Prerequisite:* senior undergraduate or graduate standing and permission of instructor. Student serves as a member of a consulting team to a small business. Responsibility is to analyze the business operation and make recommendations for improving of identified problem areas.

MNGT 565. Organizational Behavior. (3-0-3); I. *Prerequisite:* senior standing or consent of instructor. A study of human and interpersonal behavior to understand, evaluate, and appraise business and social situations. Emphasis on skill and the ability to work with peoples, groups, and institutions.

MNGT 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various management subjects will be presented periodically to supplement the basic course offerings in management. Credit toward degree programs must be approved by the student's advisor.

Marketing

MKT 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

MKT 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various marketing subjects will be presented periodically to supplement the basic course offerings in marketing. Credit toward degree programs must be approved by the student's advisor.

MKT 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in MKT 139 or of a nature similar to a sophomore status course.

MKT 304. Marketing. (3-0-3); I, II. *Prerequisite:* ECON 201 and 202 or consent of instructor. Raw materials and products; organized exchange; analysis of market; market price; manufactured products; warehouses, cooperative societies; distribution organizations.

MKT 305. Purchasing. (3-0-3); II. *Prerequisite:* MKT 304 or consent of instructor. Purchasing functions and procedures, organization and operation of the purchasing department, inventory, quantity and quality controls, sources of supply, legal aspects of purchasing, evaluating purchase performance.

MKT 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

MKT 350. Salesmanship. (3-0-3); I, II. *Prerequisite:* MKT 304 or consent of instructor. The role of selling in the American economy; salesman's job and qualifications, development and application of sales techniques; selection, training, and management of the sales force.

MKT 351. Sales Management. (3-0-3); I. Prerequisite: **MNGT 301 MKT 304 or consent of instructor.** The changing role of the sales manager, developing a managerial and strategic framework concerning the sales manager's job; the behavior of a manager of people, money, and things within the sales sphere of business.

MKT 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various marketing subjects will be presented periodically to supplement the basic course offerings in marketing. Credit toward degree programs must be approved by the student's advisor.

MKT 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

MKT 450. Consumer Behavior. (3-0-3); II. Prerequisite: **MKT 304 or consent of instructor. PSY 154 and SOC 101 recommended.** Fundamental process of motivation, perception, and learning nature and influence of individual predisposition, group influence on marketing, consumer decision processes, aggregate consumer behavior.

MKT 451. Retail Management. (3-0-3); on demand. Prerequisite: **MKT 304.** Establishing a store, store organization, buying, pricing and selling, planning and control, credit management, insurance tax reports and operating analysis, basic principles of retailing.

MKT 453. Marketing Planning and Strategies. (3-0-3); I, II. Prerequisites: **MNGT 301, MKT 304, and completion of or concurrent enrollment in all required marketing option courses or consent of instructor.** Overview of marketing functions, emphasis on formulation of policies and management of all marketing activities. Case studies are used.

MKT 476. Special Problems in Marketing. (1 to 3 hrs.); I, II, III. Prerequisites: **senior standing and prior consent of head of department.** Self-directed independent study on a specific problem, based on written proposal and justification submitted by student prior to registration. Each request will be considered on its own merit in relation to the special needs, interest, and abilities of the student.

MKT 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

MKT 552. Marketing Research and Analysis. (3-0-3); I. Prerequisites: **MKT 304 and MATH 354.** Use of research to minimize error in decision analysis. Individual studies made by students in all areas of marketing, including advertising, packaging, and merchandising.

MKT 555. Advertising. (3-0-3); I. Prerequisite: **MKT 304.** Advertising as an indirect selling technique; emphasis on determining appeals, creating images, and developing coordinated campaigns. Actual campaign to be developed by each student; stress on ideas and concepts rather than mechanics.

MKT 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various marketing subjects will be presented periodically to supplement the basic course offerings in marketing. Credit toward degree programs must be approved by the student's advisor.

Manufacturing Technology

MFT 106. Thermoplastic Processing. (2-2-3); I. Prerequisite: **GCT 103.** Introduction is made to the materials and techniques employed in the processing of thermoplastics.

MFT 107. Thermosetting Plastics Processing. (2-2-3); II. Prerequisite: **GCT 103.** Study is made as to the various ways in which thermosetting plastic compounds are processed.

MFT 186. Manufacturing and Fabrication. (2-2-3); I,II. Ferrous and nonferrous metals, basic metallurgy and heat treating,

sheet metal, metal spinning and electroplating, basic welding, casting and forging.

MFT 286. Machine Tool Processes. (2-2-3); II. Prerequisite: **MFT 186 or consent of the instructor.** Various metal forming and machining experiences; emphasis on exact tolerances and precise dimensions. Lathe, mill, shaper, and grinder experiences.

MFT 306. Mold Design and Construction. (2-2-3); II. Prerequisite: **consent of the instructor. (Recommended courses MFT 106, 107, 111, and 286.)** Study and experiences evolve around the design of products in relationship to the physical characteristics of plastics, molding techniques, and mold construction methods.

MFT 386. NC-CNC Manufacturing Technology. (2-2-3); I. Prerequisite: **MFT 286 or consent of instructor.** Designed to provide advance tooling theory and numerical controlled and computer numerical controlled machine processes. Application and selection of carbide tooling emphasized in production applications.

MFT 486. Patternmaking and Foundry. (1-2-2); II. Casting of hot metals with activities in pattern development, sand testing, and mold design.

MFT 488. Flexible Manufacturing Engineering Technology. (1-4-3); II. Prerequisite: **MFT 386.** Advanced tools and machining theory; use of carbides, with emphasis on production machining. Turret and progressive tooling design.

MFT 588. Machine Shop. (1-4-3); on demand. Prerequisite: **MFT 386.** Advanced tool and machining theory, with emphasis on production machining, and progressive tooling design for numerical control applications.

Marine Science

The following courses, which are taught only at Gulf Coast Research Laboratory during the summer, are suitable for elective courses in major and minor programs of study in the sciences. The Laboratory furnishes the staff for courses and research. Applications for the courses and additional information are available from the on-campus coordinator in the Department of Biological and Environmental Sciences. Tuition is paid to Morehead State University at the Mississippi resident rate.

MSCI 571. Special Problems in Marine Science (Marine Science 400). (1 to 6 sem. hrs. as determined by the problem director); III. Prerequisites: **to be set by problem director.** Special problems are research oriented and grades are based on reports submitted by students.

MSCI 572. Special Topics in Marine Science (Marine Science 405). (1 to 6 sem. hrs. as determined by topic advisor); III. Prerequisites: **to be set by topics advisor.** Provides an opportunity for students to obtain credit for study in areas in which the laboratory offers no formal course.

Marine Science (Botany)

MSCI 322. Marine Botany (Botany 341). (4 hrs.); III. Prerequisites: **Ten semester hours of biology, including botany.** A survey, based upon local examples of the principal groups of marine algae and marine flowering plants, treating structure, reproduction, distribution, identification, and ecology.

MSCI 323. Coastal Vegetation (Botany 331). (3 hrs.); III. Prerequisites: **Ten hours of biology, including general botany.** General and specific aspects of coastal vegetation, with emphasis on local examples.

MSCI 562. Salt Marsh Plant Ecology (Botany 441). (4 hrs.); III. Prerequisites: **General botany, plant taxonomy, plant physiology, and general ecology or consent of instructor.** Emphasis on the botanical aspects of local marshes. Plant identification, composition, structure, distribution, and development of coastal marshes. Biological and physical interrelationships. Primary productivity and relation of marshes to estuaries and associated fauna.

Marine Science (Chemistry)

MSCI 462. Marine Chemistry (Chemistry 461). (6 hrs.); **III. Prerequisites:** 16 semester hours chemistry and three to six hours of general biology and geology or consent of instructor. Chemical aspects of the oceans and the interactions of chemistry, biology, and geology in the marine environment.

Marine Science (Education)

MSCI 595. Marine Science for Teachers I: Basic Techniques (Marine Science Education 431). (3 hrs.); **III. Prerequisites:** biology background or consent of instructor. Introduces students, particularly in-service teachers, to the study of marine science and to promote the teaching of marine biology at all grade levels.

MSCI 596. Marine Science for Teachers II: Advanced Studies (Marine Science Education 432). (3 hrs.); **III. Prerequisites:** MSCI 595. Augments MSCI 595 to enable the students, particularly in-service teachers, to establish further studies in the marine sciences in local school systems at all grade levels.

MSCI 597. Marine Science for Elementary Teachers (Marine Science Education 433). (3 hrs.); **III. Prerequisites:** six hours in biology. Prepare teachers of elementary grade children to conduct classes using marine-related materials.

Marine Science (Geology)

MSCI 331. Coastal Marine Geology (Geology 431). (3 hrs.); **III. Prerequisites:** Six semester hours of geology. Onshore and nearshore geological processes, sedimentation patterns, and land-form development.

Marine Science (Microbiology)

MSCI 566. Marine Microbiology (Microbiology 452). (5 hrs.); **III. Prerequisites:** general microbiology and environmental microbiology or consent of instructor. Microbiology and advanced biology students are introduced to the role of microorganisms in the overall ecology of the oceans and estuaries.

Marine Science (Oceanography)

MSCI 464. Oceanography I: Physical, Chemical, and Geological (Oceanography 251). (5 hrs.); **III. Prerequisites:** college algebra and two semesters of general chemistry. Geology and physics courses helpful, but not required. This introductory course in oceanography integrates chemical, geological, and physical oceanography to provide a multidisciplinary approach to the fundamentals of oceanography.

MSCI 465. Oceanography II: Marine Biology (Oceanography 252). (5 hrs.); **III. Prerequisites:** eight semester hours of biological sciences. A general introduction to marine biology with emphasis on local fauna and flora.

Marine Science (Zoology)

MSCI 341. Marine Invertebrate Zoology (Zoology 361). (6 hrs.); **III. Prerequisites:** 16 semester hours of zoology, including at least an introductory course in invertebrate zoology. A concentrated study of the important free-living, marine and estuarine invertebrates of the Mississippi Sound and adjacent continental shelf of the northeastern Gulf of Mexico, with emphasis on the structure, classification, phylogenetic relationships, larval development, and functional processes.

MSCI 342. Marine Vertebrate Zoology and Ichthyology (Zoology 362). (6 hrs.); **III. Prerequisites:** 16 semester hours of zoology, including comparative anatomy or consent of instructor. A general study of the Marine Chordata, including lower groups and the mammals and birds, with most emphasis on the fishes.

MSCI 561. Comparative Histology of Marine Organisms (Zoology 408). (1 to 6 hrs.); **III. Prerequisites:** consent of instructor. A detailed study of the histological organization of representative marine organisms. Fixation, processing, and study of tissue using light microscopy, transmission electron microscopy, and scanning electron microscopy. The relationship between structural changes and physiological changes during life cycle of organism. Histopathology with respect to tissue responses to infection and to damage by toxic agents.

MSCI 563. Marine Fisheries Management (Zoology 442). (4 hrs.); **III. Prerequisite:** consent of instructor. An overview of practical marine fishery management problems.

MSCI 564. Behavior and Neurobiology of Marine Animals (Zoology 443). (4 hrs.); **III. Prerequisites:** 16 semester hours of zoology and/or psychology or consent of the instructor. Survey of behavior, neuroanatomy, and neurophysiology of marine animals with emphasis on the neural mechanisms underlying the behavior of selected invertebrates, fishes, birds, and mammals.

MSCI 565. Marine Ecology (Zoology 452). (5 hrs.); **III. Prerequisites:** 16 hours of biological science, including general zoology, general botany, and invertebrate zoology. A consideration of the relationship of marine organisms to their environment. The effects of temperature, salinity, light, nutrient concentration, currents, food, predation, and competition on the abundance and the distribution of marine organisms are considered.

MSCI 567. Parasites of Marine Animals (Zoology 461). (6 hrs.); **III. Prerequisites:** General parasitology or consent of instructor. Parasites of marine and estuarine animals; emphasis on morphology, taxonomy, life histories, and host-parasite relationships.

MSCI 568. Aquaculture (Zoology 464). (6 hours); **III. Prerequisites:** general zoology or invertebrate and vertebrate zoology or permission of instructor. A lecture, laboratory, and field course designed to introduce aquatic and marine biology students to the history, principles, problems, and procedures relating to the culture of commercially important crustaceans, fish, and mollusks along the Gulf Coast.

MSCI 569. Fauna and Faunistic Ecology of Tidal Marshes (Zoology 447). (4 hrs.); **III. Prerequisites:** 16 semester hours of biological sciences and junior standing or consent of instructor. Survey and discussion of the taxonomy, distribution, trophic relationships, reproductive strategies, and adaptation of tidal marsh animals, with emphasis on those occurring in northern Gulf marshes.

MSCI 570. Early Life History of Marine Fishes (Zoology 570). (4 hrs.); **III. Prerequisites:** ichthyology, fisheries, biology, ecology, and/or consent of instructor. Reproductive strategies and early developmental processes of marine fishes. Temporal and spatial distribution patterns, population dynamics, and ecological interactions of fish eggs and larvae; role of early stages of fishes in fisheries oceanography, marine ecology, and systematics; methods of sampling and identifying fish eggs and larvae; data quantification and analysis; rearing experiments; techniques for studying larval fish dynamics.

MSCI 571. Special Problems in Marine Science (Marine Science 400). **III. Prerequisites and credit to be set by problem director.** Supervised undergraduate research on specific problems in all areas of marine science.

MSCI 572. Special Topics in Marine Science (Marine Science 405). **III. Prerequisites and credits to be set by instructor.** Supervised undergraduate study in subject areas not available to students through other courses.

MSCI 576. Biological Electron Microscopy I (Zoology 530). (3 hours); **III. Prerequisite:** consent of instructor. A study of tissue preparation, theory, and techniques of ultramicrotomy, and an introduction to the fundamentals of electron microscopy.

MSCI 577. Biological Electron Microscopy II (Zoology 531). (3 hours); III. *Prerequisite:* MSCI 576. Continuation of MSCI 576; includes a study of special techniques and the operation and maintenance of an electron microscope.

MSCI 595. Basic Techniques in Marine Science for Teachers (Marine Science Education 431). (3 hours); III. *Prerequisite:* biology background or consent of instructor. A course designed to introduce the students, particularly in-service teachers, to the study of marine science and to promote the teaching of marine biology at all grade levels.

MSCI 596. Advanced Studies in Marine Science for Teachers (Marine Science Education 432). (3 hours); III. *Prerequisite:* MSCI 595. Trains teachers to conduct classes in marine science at the elementary and secondary school levels.

Mathematics

MATH 091. Beginning Algebra. (3-0-3); I, II, III. *Prerequisite:* placement indicated by the Profile for Placement in Mathematics. A first course in algebra for students with no previous experience with algebra or who have been unsuccessful in attempting a course in Algebra I at the secondary school level. This is a course in the developmental studies curriculum and does not count as credit toward graduation. A student should not expect other institutions to accept this course for transfer credit.

MATH 093. Intermediate Algebra. (3-0-3); I, II, III. *Prerequisite:* Algebra I in secondary school or MATH 091 and placement indicated by the Profile for Placement in Mathematics. A second course in algebra, giving the student an opportunity to gain additional competency in algebra necessary for certain courses at the university. This is a course in the developmental studies curriculum and does not count as credit toward graduation. A student should not expect other institutions to accept this course for transfer credit.

MATH 110. Problem Solving Techniques. (1-0-1); I, II. A basic course emphasizing problem interpretation, translation, and solution. Hand-held electronic calculators used for the solution of problems.

MATH 123. Introduction to Statistics. (3-0-3); I, II. Basic concepts of probability, sampling, and the algebra of events. Properties of selected discrete and continuous distributions.

MATH 131. General Mathematics I. (3-0-3); I, II, III. A survey course which includes topics from the different specialties in mathematics. Counting and numeration, consumer mathematics, sequences, geometry, probability and statistics, and computers.

MATH 135. Mathematics for Technical Students. (3-0-3); I, II, III. Practical mathematics as applied to technical programs. Fractions, ratio and proportion, percentage, elementary algebra, formulae, volumes, and trigonometry.

MATH 141. Plane Trigonometry. (3-0-3); I, II, III. *Prerequisite:* MATH 152 or placement indicated by the Profile for Placement in Mathematics. Trigonometric functions, trigonometric identities, inverse functions, and applications.

MATH 152. College Algebra. (3-0-3); I, II, III. *Prerequisite:* placement indicated by the Profile for Placement in Mathematics or MATH 093. Field and order axioms; equations, inequalities; relations and functions; exponentials; roots; logarithms; sequences; probability and statistics.

MATH 160. Mathematics for Business and Economics. (4-0-4); I, II. *Prerequisite:* High School Algebra II or equivalent. An introduction to finite mathematics and calculus. Systems of linear equalities and inequalities, matrix algebra, linear programming, differentiation and integration; applications.

MATH 173. Pre-Calculus Mathematics I. (3-0-3); I. Sets and logic; relations and functions; number systems through the reals; systems of equations.

MATH 174. Pre-Calculus Mathematics II. (3-0-3); I. Exponential, logarithmic, and trigonometric function; complex numbers, theory of equations; sequences and series.

MATH 175. Analytic Geometry and Calculus I. (4-0-4); I, II. *Prerequisite:* placement indicated by the Profile for Placement in Mathematics or credit in MATH 152 and MATH 141. Functions and graphs; limits; continuity; differentiation; applications of the derivative; integration; applications of the definite integral.

MATH 231. Mathematics for the Elementary Teacher I. (3-0-3); I, II, III. (For elementary teachers only.) Number systems, primes, and divisibility; fractions.

MATH 232. Mathematics for the Elementary Teacher II. (3-0-3); I, II, III. (For elementary teachers only.) *Prerequisite:* Mathematics 231. Algebraic sentences; real numbers; geometry of measurement; mathematical systems; introduction to calculators and computers; methods of presentation of mathematical concepts.

MATH 252. Boolean Algebra. (3-0-3); I. *Prerequisite:* MATH 152 or consent of the instructor. Study of the basic laws and operations of Boolean algebra; simplification techniques, circuit design.

MATH 260. FORTRAN Programming I. (3-0-3); II. *Prerequisites:* DATA 202 or consent of instructor. Introduction to FORTRAN programming language. Application of mathematical techniques to problems in programming. Business, engineering, management, and modeling examples are employed to provide comprehensive knowledge of the language.

MATH 275. Analytic Geometry and Calculus II. (4-0-4); I, II. *Prerequisites:* MATH 175 and DATA 202. Differentiation and integration of exponential, logarithmic, and trigonometric functions; techniques of integration; numerical methods; improper integrals, infinite series; polar coordinates.

MATH 276. Analytic Geometry and Calculus III. (4-0-4); I, II. *Prerequisite:* MATH 275. Polar coordinates parametric equations; vectors; differential calculus of functions of several variables; multiple integration; vector calculus.

MATH 301. Elementary Linear Algebra. (3-0-3); I. *Prerequisite:* MATH 175. Vector spaces; determinants; matrices; linear transformations; eigenvectors.

MATH 304. Mathematical Logic and Set Theory. (3-0-3); I. Propositional calculus; sets; relations; functions; Boolean algebras; cardinality.

MATH 310. Calculus IV. (3-0-3); II. *Prerequisite:* MATH 275. Algebraic and topological properties of the reals; limits and continuity; differentiation; infinite series; Riemann integration.

MATH 312. Numerical Analysis. (3-0-3); II. *Prerequisite:* MATH 275. A basic course in numerical analysis, including error analysis, series approximation, numerical integration techniques, practical applications of matrices, solution of simultaneous non-linear equations, and curve-fitting.

MATH 332. Introduction to Finite Mathematics. (3-0-3); II. *Prerequisite:* MATH 304 or junior standing. Linear programming, combinatorial analysis, probability, matrices, game theory, and graph theory.

MATH 350. Introduction to Higher Algebra. (3-0-3); II. *Prerequisite:* MATH 304. Groups, rings, integral domains, related topics.

***MATH 353. Statistics.** (3-0-3); I, II, III. *Prerequisite:* high school Algebra II or equivalent. Introduction to basic statistics with applications.

***MATH 354. Business Statistics.** (3-1-3); I, II, III. *Prerequisite:* high school Algebra II or equivalent. Introduction to statistics with applications to business.

MATH 363. Differential Equations. (3-0-3); II. *Prerequisite:* MATH 275. Special types of first order differential equations; linear differential equations; operator methods; Laplace transforms; series methods; applications.

MATH 370. College Geometry II (3-0-3); I. Prerequisite: MATH 275. Sets of axioms, finite geometries, convexity, Euclidean geometry of the polygon and circle, geometric constructions.

MATH 371. College Geometry II. (3-0-3); II. Prerequisite: MATH 370. Geometric transformations, non-euclidean geometry, projective geometry, geometric topology, geometry of inversion.

MATH 373. Principles and Techniques of Mathematics. (3-0-3); I, odd years. Prerequisite: MATH 275. For prospective teachers of secondary mathematics. Material from advanced mathematics extends topics of high school mathematics.

MATH 391. Dynamics. (3-0-3); I. Prerequisite: Physics 221 or 231. A study of motion of bodies. Kinematics and dynamics of particles and rigid bodies; work and energy; impulse and momentum.

MATH 481. Mathematics for Engineers and Scientists. (3-0-3); I. Fourier series, ordinary and partial differential equations, special functions, and integral transforms. See PHYS 481.

MATH 504. Topology. (3-0-3); II. Prerequisites: MATH 304 and 350 or consent of instructor. Elementary set theory; topological spaces; metric spaces; compactness and connectedness; mapping of topological spaces; related topics.

MATH 510. Real Variables. (3-0-3); I. Prerequisite: MATH 310. Topological properties of Euclidean space; theory of differentiation and integration; sequences and series of functions, metric spaces.

MATH 511. Functional Analysis. (3-0-3); I. Prerequisites: MATH 301 and 510 or consent of instructor. Linear spaces; normed and Banach spaces; Hilbert spaces; applications to sequence spaces and Fourier series.

MATH 519. Probability. (3-0-3); I. Prerequisite: MATH 275. A first course in mathematical probability and its applications to statistical analysis.

MATH 520. Mathematical Statistics. (3-0-3); II. Prerequisite: MATH 519. Hypothesis testing and estimation; bivariate and multivariate distributions; order statistics; test of fit; nonparametric comparison of locations; distribution theory.

MATH 553. Statistical Methods. (3-0-3); I. Prerequisite: MATH 353. A second course in basic statistical methods with applications. Analysis of variance; general regression analysis; hypothesis testing; confidence intervals.

MATH 555. Nonparametric Statistics. (3-0-3); II. Prerequisite: MATH 353. Basic nonparametric statistical methods with applications.

MATH 573. Projective Geometry. (3-0-3); III. Prerequisite: MATH 372 or consent of instructor. A synthetic treatment of projective geometry leading into natural homogeneous coordinates; analytic projective geometry; conics; axiomatic projective geometry; some descendants of real projective geometry.

MATH 575. Selected Topics. (1 to 6 hrs.); I, II. Prerequisite: consent of instructor. Topics are offered which meet the needs of the students and which are not otherwise included in the general curriculum.

MATH 585. Vector Analysis. (3-0-3); I. Co-requisite: MATH 276. Vector algebra; vector functions of a single variable; scalar and vector fields; line integrals; generalizations and applications.

MATH 586. Complex Variables. (3-0-3); II. Prerequisite: MATH 310 or 585 or permission of instructor. Algebra of complex variables, analytic functions, integrals, power series; residues and poles; conformal mappings.

MATH 595. Mathematics Curriculum Workshop. (1 to 6 hrs.); III. Prerequisite: consent of instructor. New curricula development in mathematics.

*A student may receive credit toward graduation in only one—MATH 353 or 354.

Military Science

MS 101. Introduction to Military Science. (2-0-2); I, II, III. Introduces the Military Science Commissioning Program, its

goals, purpose, and structure. Explains the organization and makeup of our present-day military forces. Study of customs and traditions of the service. Introduces basic skills in rappelling, camping, rifle marksmanship, and land navigation.

MS 102. U.S. Army: Its Evolution and Development. (2-0-2); II, III. Analyzes the purpose of our nation's security and defense establishments. Studies the roles of the U.S. Army, Reserves, and National Guard. Introduces the branches of the Army and their roles in the Army structure. Introduces basic skills in first aid and land navigation.

MS 201. Leadership Principles and Techniques. (2-0-2); I, II, III. Study of leadership and management principles related to both military and civilian applications. Introduction to counseling principles and techniques.

MS 202. Instructional Techniques and Survey of Army Career Fields. (2-0-2); II, III. A study of methods of instruction, physical readiness training, and drill and ceremonies. An analysis of the roles and missions of the branches of the Army as they relate to career fields. A study of advanced first aid procedures, leadership, and roles of officers and noncommissioned officers.

MS 301. Advanced Military Science. (2-2-3); I. Study of general military subjects relating to map reading, decision making process.

MS 302. Advanced Military Science. (2-2-3); II. Application of leadership and management skills; branches of the Army, military weapons, electronic communications and tactics, and military operations orders.

MS 339. Cooperative Education in Military Leadership. (4-0-4); III. Attendance at ROTC Advanced Summer Camp. (Six weeks in duration.)

MS 401. Advanced Military Science. (2-2-3); I. Development of cadet awareness of general military subjects to include briefing techniques, military justice, and military law.

MS 402. Advanced Military Science. (2-2-3); II. Development of cadet awareness in ethics and professionalism; and exposure to military administrative procedures, and training and logistics management.

Mining

MIN 101. Introduction to Mining and Reclamation. (3-0-3); I. A survey of all phases of the mining industry, emphasizing the importance of safety management and including areas such as production, laws, history, geology, coal analysis and preparation, environmentalism, marketing, uses, economics, reclamation, labor relations, and transportation. Both underground and surface mining techniques are introduced.

MIN 103. Mine Drafting. (1-4-3); II. Prerequisite: GCT 103. The adaptation of basic drawing and drafting skills to mine layout and design. Emphasis is placed upon accurate pictorial interpretation of measurement and layout and upon the development of mine drafting skills.

MIN 104. Underground Mine Safety. (3-0-3); II. A study of underground mine safety procedures as required by the Kentucky Department of Mines and Minerals and the United States Department of Labor's Mine Safety and Health Administration.

MIN 200. Mine Surveying. (1-4-3); I. Prerequisites: GCT 103 and CON 102. The use of the transit in underground and above-ground surveying. Techniques are used to teach the student to locate benchmarks, plot shafts, and passageways, and other details in mine surveying.

MIN 201. Mine Equipment. (3-0-3); I. Prerequisite: MIN 101. An analysis of various types of mining equipment, including design, function, methods of control applications, and safety of operation.

MIN 202. Mine Ventilation. (3-0-3); I. Prerequisite: MIN 101. A study of the control of mine air, mechanics of air flow, and mine fans. Also included is an analysis of mine gases and detection

devices. State and federal mining regulations, methods of inspection, and lawful ventilation practices will be stressed.

MIN 210. Internship. (1 to 8 hrs); III. The student will gain experience in actual work-place situation. The student will work in an approved organization under the direction of a supervisor for a specified period of time. Credit will be earned in the relation to the amount of time worked. The faculty will visit the student at the job site, and the student will be expected to complete a written evaluation of his or her work experience.

MIN 301. Mine Electrical Systems. (3-0-3); I. Prerequisite: EET 240 and MIN 101. Analysis and function of mine electrical systems, preventative maintenance, and the inspection of the electrical equipment.

MIN 302. Coal Analysis and Preparation. (2-2-3); II. A study of the various techniques used in analyzing and preparing coal, resulting in findings of coal characterizations such as sulfur, ash, BTU's, and moisture content. The student learns the process of cleaning, sizing, and mixing coal. Safe disposal of wastes and by-products from the preparation of coal is stressed.

MIN 303. Mine Laws. (3-0-3); II. Prerequisite: MIN 101. A study of underground mining laws and their applications to the underground mine operations. An analysis is made of state and federal codes, their interpretations and applications.

MIN 305. Surface Mining Systems. (3-0-3); II. Prerequisite: MIN 101. A study of the engineering and management approaches to the various surface mining systems. Topics will include the study of surface mining laws, production and safety techniques, equipment types and their functions, and the management of surface mining operations.

MIN 307. Hydrology. (3-0-3); I. Prerequisites: MIN 101, GEOS 200 or consent of instructor. A study of surface and subsurface fluid flow systems. Basic areas will include open and closed channel flow, hydrogeology, sedimentation/erosion control, and applicable state/federal regulations.

MIN 401. Mining Economics. (3-0-3); II. Prerequisite: MIN 101. A study of the various economic aspects related to the mining sector, with special emphasis on the coal industry. Topics include economic history, supply and demand, comparative mining industry structure, consumption and distribution patterns, and comparative cost analysis.

MIN 402. Mine Roof and Rib Control. (3-0-3); II. Prerequisites: MIN 101 and GEOS 200. A study of bedded sedimentary formations and the transition of these formations once an opening is excavated through them. Provides a basis for the design of support systems to prevent or control the collapse or failure of a coal mine roof and ribs both safely and economically.

MIN 403. Blasting and Explosives. (3-0-3); I. Prerequisites: MIN 101 and GEOS 200. An analysis of the principle types of commercial high explosives and explosive devices, and chemical and physical characteristics of explosives. The fundamentals of blasting design will be covered, including rock breakage mechanisms, overburden, spacing and stemming calculations, and blasting pattern design. Legal issues and safety aspects of explosives and blasting will be stressed.

MIN 404. Mine Management. (3-0-3); I. Prerequisite: MIN 101. A study of basic principles of management and their specific applications to mine operations. Included will be the responsibilities associated with effective middle and front-line management in today's coal operations. The course will focus on supervisory functions with ideas for strengthening mine productivity, labor-management relations, costs, training, and safety.

MIN 406. Underground Mine Technology. (3-0-3); II. Prerequisite: senior standing. An in-depth study of the engineering and management approaches to underground mine systems. Special emphasis will be placed on integrating previously learned material to cover the advanced areas of planning, installation, and development of underground mining operations.

MIN 476. Special Problems in Mining. (1 to 3 hrs.); I, II, III. Prerequisite: senior standing. Designed for the purpose of permitting a student to conduct advanced and specialized studies in mining and/or the energy sector. A written proposal, including a justification, must be submitted to the assigned instructor and to the student's advisor before registration. Each request will be considered as to its relevancy to the education of the student.

Music (Conducting)

MUSC 271. Basic Conducting. (2-0-2); I. Fundamentals of score reading and baton technique.

MUSC 471. Choral Conducting. (2-0-2); II. Prerequisite: MUSC 271. Baton technique, rehearsal procedures, choral diction, and style and interpretation of choral works.

MUSC 472. Instrumental Conducting. (2-0-2); II. Prerequisite: MUSC 271. Baton technique, rehearsal procedures, and style and interpretation of instrumental works.

MUSC 473. Rehearsal Techniques for Jazz Ensembles. (2-0-2); on demand. Prerequisite: MUSC 271. Special techniques needed in rehearsing jazz, pop, and rock ensembles.

Music (Education)

MUSE 221. Music for the Elementary Teacher. (2-0-2); I, II, III. Prerequisite: MUST 100, 101, or 131. Music fundamentals and methods for teaching music to elementary school children.

MUSE 230. Introduction to Music Education. (1-0-1); I, II. Orientation to music teaching in the public schools.

MUSE 325. Materials and Methods for Elementary Grades. (2-2-3); I. Prerequisite: MUSE 230. Materials and methods for the elementary school with emphasis on the teaching of musical concepts through developmental techniques.

MUSE 335. Field Experience. (1 to 3 hrs.); on demand. Two full days weekly of teaching under supervision in public schools in nearby communities.

MUSE 336. Field Experience. (1 to 3 hrs.); on demand. Continuation of MUSE 335.

MUSE 375. Vocal Materials and Methods. (2-0-2); II. Prerequisite: MUSE 325. The teaching of general music in the junior and senior high schools with emphasis on choral activities.

MUSE 376. Instrumental Materials and Methods. (2-0-2); II. Prerequisite: credit for applied music in at least two of the following fields: strings, brasswinds, woodwinds, percussion. Instructional procedures and materials used in instrumental teaching from the elementary grades through high school

MUSE 377. Instrumental Repair and Maintenance. (1-1-1); I. Demonstration and practice in simple repairs and maintenance of band and orchestral instruments.

MUSE 378. Piano Pedagogy. (2-1-2); II. Survey and evaluation of materials and methods for teaching class and private piano.

MUSE 515. Microcomputers and Music. (3-0-3); on demand. Applications microcomputers and music. An introduction to the current usage, implementation, and software assessment.

MUSE 578. Teaching of Percussion. (2-0-2); on demand. A study of the development of percussion instruments, literature, and performing techniques.

MUSE 579. Marching Band Workshop. (2-0-2); I, III. Techniques of preparing marching bands for performance.

MUSE 595. Voice Pedagogy. (3-0-3); on demand. An introduction to the physiological, acoustical, and phonetic bases of singing and private voice instruction. Emphasis on the relationship between scientific fact and the practical application of principle through the use of imagery and phonetic choice.

Music (Class Applied)

- MUSG 123. Class Piano I.** (0-2-1); I, II.
MUSG 124. Class Piano II. (0-2-1); I, II.
MUSG 126. Traditional English and American Dance. (0-2-1); on demand. Technique and style of American and English country dances in the circle, square, and contra formation.
MUSG 135. Class Guitar I. (0-2-1); I, II.
MUSG 136. Class Classical Guitar. (0-2-1); I, II.
MUSG 137. Class Banjo. (0-2-1); on demand.
MUSG 183. Studio Improvisation. (0-2-1); I, II. Jazz styles, improvisational theories and techniques, with emphasis on small group playing and supervised improvisation. May be repeated for credit.
MUSG 211. Class Woodwinds. (0-2-1); I. Not for woodwinds majors.
MUSG 212. Advanced Woodwinds Techniques. (0-2-1); II. *Prerequisite:* MUSG 211 or prior playing experience with woodwind instruments. May be substituted for MUSG 211.
MUSG 213. Class Brasswinds. (0-2-1); I. Not for brasswinds majors.
MUSG 214. Advanced Brasswind Techniques. (0-2-1); II. *Prerequisite:* MUSG 213 or prior playing experience with brasswind instruments. Performance techniques and teaching procedures for brasswind instruments. May be substituted for MUSG 213.
MUSG 215. Class Harp. (0-2-1); on demand.
MUSG 217. Class Percussion. (0-2-1); I, II.
MUSG 223. Class Piano III. (0-2-1); I, II.
MUSG 224. Class Piano IV. (0-2-1); I, II.
MUSG 226. Class Strings. (0-2-1); I, II.
MUSG 235. Class Guitar II. (0-2-1); I, II.
MUSG 239. Class Voice. (0-2-1); I, II.
MUSG 245. Jazz Keyboard I. (0-2-1); I. *Prerequisite:* MUSG 124 or consent of the instructor. An introduction to jazz keyboard techniques with emphasis on ensemble playing.
MUSG 246. Jazz Keyboard II. (0-2-1); II. *Prerequisite:* MUSG 245. Continuation of MUSG 245.
MUSG 345. Jazz Keyboard III. (0-2-1); I. *Prerequisite:* MUSG 246. Jazz keyboard techniques with emphasis on solo playing.
MUSG 346. Jazz Keyboard IV. (0-2-1); II. *Prerequisite:* MUSG 345. Continuation of MUSG 345.
MUSG 379. Double Reed Making. (0-2-1); on demand. Concepts and skills of making double reeds, oboe through contrabassoon. May be repeated for credit.
MUSG 383. Studio Improvisation. (0-2-1); I, II. *Prerequisite:* four hours of credit in MUSG 183. May be repeated for credit.
MUSG 583. Studio Improvisation. (0-2-1); I, II. *Prerequisite:* four hours of credit in MUSG 383. May be repeated for credit.

Music (History and Literature)

- MUSH 161. Literature of Music I.** (2-0-2); I. Designed to promote intelligent listening and understanding of music of various periods and styles.
MUSH 162. Literature of Music II. (2-0-2); II. Continuation of MUSH 161.
MUSH 261. Music Listening. (3-0-3); I, II. An introduction to the various styles, periods, and media of music. A general education elective; does not apply toward fulfilling music degree requirements.
MUSH 329. Church Music. (2-0-2); on demand. Brief history; techniques of hymn and anthem playing and/or directing; planning the worship service.
MUSH 361. History of Music I. (3-0-3); I. A survey of the history of music in Western Europe from its ancient Greek beginnings through the early eighteenth century.
MUSH 362. History of Music II. (3-0-3); II. The history of music in Western Europe, Russia, and America from the eighteenth century to the present.

- MUSH 365. Jazz History and Literature.** (3-0-3); I. A survey of jazz history from its beginning (ca. 1850) to the present.
MUSH 565. Music in America. (3-0-3); II. A survey of the history of American music from colonial times to the present.
MUSH 581. Literature of the Piano. (3-0-3); I. Survey of the keyboard music from the sixteenth century to the present.
MUSH 591. School Band Literature. (2-0-2); on demand. Examination and criticism of music for training and concert use by groups at various levels of attainment.
MUSH 592. Vocal Literature. (3-0-3); on demand. A survey of music for solo voice ensemble, sixteenth through twentieth centuries; stylistic traits, types of composition, sources, and performance practices.

Music (Ensembles)

- Ensembles listed with two course numbers may be repeated for credit after earning four hours of lower division credit (100 level), a student may enroll for upper division credit (300 level).
MUSM 135, 335. Clarinet Choir. (0-2-1); on demand.
MUSM 136, 336. Woodwind Quintet. (0-2-1); on demand.
MUSM 161, 361. Trumpet Choir. (0-2-1); on demand.
MUSM 162, 362. Trombone Choir. (0-2-1); on demand.
MUSM 163, 363. Tuba and Euphonium Ensemble. (0-2-1); on demand.
MUSM 167, 367. Brass Choir. (0-2-1); I, II. Open to brass players with the consent of the instructor.
MUSM 168, 368. Brasswind Ensemble. (0-2-1); on demand.
MUSM 169, 369. Percussion Ensemble. (0-2-1); I, II.
MUSM 170, 370. Concert Band. (0-2-1); II. Open to all students. Admission by audition.
MUSM 171, 371. Symphony Band. (0-2-1); II. Open to all students. Admission by audition.
MUSM 172, 372. Marching Band. (0-5-1); I. Open to all students. Required for wind and percussion music education students. Upper division credit after earning two hours of credit.
MUSM 178, 378. String Ensemble. (0-2-1); on demand.
MUSM 179, 379. Orchestra. (0-2-1); I, II. Open to all string students and to selected wind and percussion players as needed.
MUSM 181, 381. Jazz Ensemble. (0-2-1); I, II. Open to all students. Admission by audition.
MUSM 182, 382. Jazz Vocal Ensemble. (0-2-1); I, II. Open to all students. Admission by audition.
MUSM 183, 383. Traditional Music Ensemble. (0-2-1); on demand.
MUSM 184, 384. Guitar Ensemble. (0-2-1); I, II.
MUSM 187. Piano Sight Reading I. (0-2-1); I, II. Designed to develop sight reading competence. Required for piano majors.
MUSM 188. Piano Sight Reading II. (0-2-1); I, II. Continuation of MUSM 187.
MUSM 189. Piano Ensemble. (0-2-1); I, II. Preparation and performance of piano ensemble literature.
MUSM 190, 390. Vocal Ensemble. (0-2-1); on demand.
MUSM 191, 391. University Chorus. (0-3-1); I, II. Open to all university students interested in singing.
MUSM 192, 392. Concert Choir. (0-2-1); I, II. Open to all students. Admission by audition.
MUSM 193, 393. Chamber Singers. (0-3-1); I, II. Selected group of 16 singers. Admission by audition.
MUSM 194, 394. Opera Workshop. (0-2-1); on demand. *Prerequisite:* consent of instructor. An introduction to the techniques of musical theatre with emphasis on the integration of music and action-dramatic study of operatic roles.
MUSM 200/400. Student Recital. (0-1-0); I, II. Music students and faculty present a recital each Thursday afternoon. Music students are required to take this course each semester.

MUSM 387, 388. Accompanying I, II. (0-2-1); I, II. Two hours of studio accompanying per week.

MUSM 487, 488. Recital Accompanying. (0-2-1); I, II.
Prerequisite: consent of piano faculty. Performance of accompaniments for junior or senior recitals. Consent of piano faculty required.

Music (Private Applied)

Private applied music courses may be repeated for credit. After completing at least four semesters of credit at the 200 level with a minimum grade of C, a student may enroll for courses at the 400 level. At least three semesters of upper division credit in the principal performing area are required for graduation with a major or area of concentration in music.

MUSP 200, 400. Performance Class.
MUSP 201, 401, 501. Private Flute.
MUSP 202, 402, 502. Private Oboe.
MUSP 203, 403, 503. Private Bassoon.
MUSP 204, 404, 504. Private Clarinet.
MUSP 205, 405, 505. Private Saxophone.
MUSP 206, 406, 506. Private Horn.
MUSP 207, 407, 507. Private Trumpet.
MUSP 208, 408, 508. Private Euphonium.
MUSP 209, 409, 509. Private Trombone.
MUSP 210, 410, 510. Private Tuba.
MUSP 216, 416, 516. Private Harp.
MUSP 219, 419, 519. Private Percussion.
MUSP 227, 427, 527. Private Violin.
MUSP 228, 428, 528. Private Viola.
MUSP 229, 429, 529. Private Cello.
MUSP 230, 430, 530. Private Double Bass.
MUSP 235, 435, 535. Private Classical Guitar.
MUSP 236, 436, 536. Private Guitar.
MUSP 237, 437, 537. Private Electric Bass.
MUSP 238, 438, 538. Private Banjo.
MUSP 240, 440, 540. Private Voice.
MUSP 241, 441, 541. Private Harpsichord.
MUSP 242, 442, 542. Private Organ.
MUSP 243, 443, 543. Private Piano.
MUSP 262, 462, 562. Private Composition.
MUSP 263, 463, 563. Private Conducting. *With the consent of the instructor.*

MUSP 360. Junior Recital. (2-0-2); I, II, III. Prerequisite: *approval of the music faculty.* A solo public recital of at least 30 minutes.

MUSP 450. Senior Recital. (2-0-2); I, II, III. Prerequisite: *approval of the music faculty.* A solo public recital of approximately 30 minutes duration.

MUSP 460. Senior Recital. (3-0-3); I, II, III. Prerequisite: *approval of the music faculty.* A solo public recital of approximately 60 minutes duration.

MUSP 470. Composition Recital. (1-0-2); I, II, III. Preparation and performance in recital of student's compositions. With the approval of the music faculty.

Music (Theory and Composition)

Music students should enroll in the appropriate music theory and music reading courses each semester until the completion of MUST 233, and MUST 237.

MUST 100. Rudiments of Music. (1-2-2); I, II, III. Fundamentals of music notation and basic elements of music theory. Recorder playing, autoharp accompaniment, and singing. Prerequisite for MUSE 221.

MUST 101. Introduction to Music Theory. (1-2-2); I, II. An introduction to the basic elements of music theory.

MUST 102. Introduction to Music Reading. (1-2-2); I, II. An introduction to the concepts and applications of reading music, vocally and instrumentally.

MUST 131. Music Theory I. (2-2-3); I, II. Prerequisite: **MUST 101 or demonstration of equivalent competencies on the Music Department Entrance Examination.** An extensive study of the basic elements of music (calligraphy, rhythm, meter, pitch, materials), emphasizing monodic, two and three-voice textures; timbral qualities of the instruments; basic diatonic harmony.

MUST 132. Music Theory II. (2-2-3); I, II. Prerequisite: **MUST 131 or demonstration of equivalent competency on the Music Department Entrance Examination.** A continuation of Music Theory I, with emphasis on three and four-voice textures, figured bass, secondary dominants, binary and ternary forms, transposition and scoring for small ensembles, and tonality changes. Supportive ear training to accompany these areas where applicable.

MUST 133. Music Reading I. (0-2-1); I, II. Prerequisite: **MUST 102 or determination of equivalent competency by Music Department Entrance Examination.** An ensemble approach to the development of basic skills of tonal and rhythmic reading through supervised vocal and instrumental reading experiences.

MUST 135. Music Reading II. (1-2-2). Prerequisite: **MUST 133.** Continuation of MUST 133.

MUST 233. Music Reading III. (2-2-3); I, II. Prerequisite: **MUST 135 or determination of equivalent competency by the Music Department Entrance Examination.** A continuation of Music Reading II, with emphasis on the individual development of vocal and instrumental music reading skills.

MUST 236. Music Theory III. (2-1-2); I, II. Prerequisite: **MUST 132 or determination of equivalent competency by Music Department Entrance Examination.** A continuation of Music Theory II, with emphasis on the broadening of total and rhythmic vocabulary through study of chromatic harmony and more complex metric rhythmic patterns.

MUST 237. Music Theory IV. (2-1-2); I, II. Prerequisite: **MUST 236 or determination of equivalent competency by the Music Department Entrance Examination.** A continuation of Music Theory III, with emphasis upon Post-Impressionistic Twentieth Century materials and styles.

MUST 263. Elementary Composition I. (1-1-2); on demand. Prerequisite: **MUST 237 or consent of the instructor.** Study and practice of basic formal compositional principles.

MUST 264. Elementary Composition II. (1-1-2); on demand. Prerequisite: **MUST 263.** Continuation of MUST 263.

MUST 331. Counterpoint. (2-0-2); on demand. Prerequisite: **MUST 132.** Writing of sixteenth and eighteenth century strict and free counterpoint, canon, invention, fugue. Some twentieth century techniques.

MUST 363. Intermediate Composition I. (1-1-2); on demand. Prerequisite: **MUST 264.** Study and writing of original creative work. One hour weekly in private study; one hour in composition seminar-colloquium.

MUST 364. Intermediate Composition II. (1-1-2); on demand. Prerequisite: **MUST 363.** A continuation of MUST 363.

MUST 433. Arranging for Jazz Ensembles I. (2-0-2); on demand. Techniques of arranging for large and small jazz ensembles.

MUST 434. Arranging for Jazz Ensembles II. (2-0-2); on demand. Prerequisite: **MUST 433.** Continuation of MUST 433.

MUST 465. Form Analysis. (2-0-2); on demand. Prerequisite: **MUST 237, 233.** A study of the elements of musical design through aural and score analysis.

MUST 531. Arranging. (2-0-2); on demand. Prerequisite: **MUST 237, 233, or the equivalent.** Scoring, arranging, transcribing, of selected or original materials for voices and/or instruments.

MUST 532. Advanced Arranging. (2-0-2); on demand. Prerequisite: **MUST 531.** Continuation of MUST 531.

MUST 563. Advanced Composition I. (1-1-2); on demand. Prerequisite: **MUST 364.** Study, writing, and perfor-

mance of students' original creative work. Private conferences and composition seminar in colloquium.

MUST 564. Advanced Composition II. (1-1-2); on demand. *Prerequisite:* MUST 563. Continuation of MUST 563.

MUST 476. Special Problems in Music. I, II, III. (1 to 3 hrs.). *Prerequisite:* Consent of instructor. Independent study and research in an area of the student's choosing. Requires completion of paper or other tangible evidence of the results of the study.

Nursing

NUR 150. Basic Theories and Concepts. (3-0-3); II. Concepts and theories from the sciences and nursing are discussed in terms of the significance to nursing practice. The BSN program philosophy and conceptual framework are included. Open to non-nursing majors; preference will be given to individuals who have declared nursing as their area of concentration. Required for both generic and RN-track nursing students.

NUR 151. Interpersonal Skills for Health Promotion. (2-0-2); II. Focuses on components of interpersonal relationships. Emphasizes self-awareness, helping skills, stress and coping behaviors, and assertiveness skills. Two hours of theory per week. Open to non-nursing majors; preference will be given to individuals who have declared nursing as their area of concentration.

NUR 152. Cardiopulmonary Resuscitation (American Heart Association Basic Life Support). (1-0-1). Open to non-nursing majors. Recognition of need for circulatory and respiratory support and provision of external life support through cardiopulmonary resuscitation. Successful completion results in certification by the American Heart Association.

NUR 250. Basic Nursing Concepts I. (2-6-4); I. *Prerequisite:* Successful completion of the 34 credit hours required in the freshman year. Must be officially admitted to BSN program. *Corequisites:* NUR 251, BIO 217, SOC 101. The study of basic human needs in relation to health-illness for individuals at all stages of the life span. Focus is on nursing process, professional issues, legal and ethical, and basic concepts related to health and illness. Two hours of theory and six hours of campus laboratory per week.

NUR 251. Pharmacology. (2-0-2); I. Open only to students officially admitted to BSN program. Introduction to the role of the pharmaceutical agents in preventing and alleviating effects of illness. Examination of nursing implications of pharmaceutical agents. Two hours of theory per week.

NUR 252. Basic Nursing Concepts II. (5-9-4); II. Half semester course. *Prerequisite:* Successful completion of the first three semesters of BSN curriculum. Must be officially admitted to BSN program. *Corequisites:* NUR 254, BIO 336. The study of clients at all stages of the life span with alterations in basic needs of oxygenation, normal cell structure, fluid and electrolyte balance, ingestion, digestion, absorption, and elimination. Five hours of theory, Seven hours of clinical experience, and two hours of campus lab per week.

NUR 253. Mental Health Nursing. (5-9-4); II. Half semester course. *Prerequisite:* Successful completion of the first three semesters of BSN curriculum. Must be officially admitted to BSN program. *Corequisites:* NUR 254, BIO 336. An eclectic approach to psychosocial theories and concepts of mental health nursing with special emphasis on developmental tasks at specific levels of the life span. Normal and deviant behaviors are considered. Five hours of lecture, seven hours of clinical experience, and two hours of campus lab per week.

NUR 254. Health Assessment. (1-6-3); I. *Prerequisite:* Successful completion of the first three semesters of BSN curriculum. Must be officially admitted to BSN program. *Corequisites:* NUR 252 and 253, BIO 336. An introduction to the concepts and techniques of interviewing, history taking, physical, and psychosocial assessment. Through practice and use of learned skill the student

will develop an ability to distinguish normal and abnormal findings. One hour of theory and six hours of laboratory experience per week.

NUR 301. Child-Adult Nursing II. (5-15-10); I, II. *Prerequisite:* successful completion of the first three semesters of the nursing curriculum. *Corequisites:* NUR 310—Trends in Nursing and ENG 102—English Composition II. A continuation of Child-Adult Nursing I with an emphasis on more in-depth assessments and more complex interventions. Increased clinical experiences are required.

NUR 311. Diagnostic Seminar. (2-0-2); I, II. *Prerequisite:* successful completion of the first three semesters of the nursing program. *Corequisite:* NUR 301-Child-Adult Nursing II. A course designed to identify deficits in associate degree nursing knowledge and to provide guidance and learning experiences to assist the learner in meeting identified needs.

NUR 350. Nursing Care of the Childbearing Family. (5-9-4); I. Half semester course. *Prerequisite:* Successful completion of the first four semesters of BSN curriculum. *Corequisites:* SOC 205, HEC 301. A developmental approach to the study of nursing care of the childbearing family. The nursing process is used in identifying alterations in meeting basic human needs for planning and providing patient and family centered nursing care. Five hours of theory, eight hours of clinical experience, and one hour of campus lab per week.

NUR 351. Nursing Care of Children. (5-9-4); I. Half semester course. *Prerequisite:* Successful completion of the first four semesters of BSN program. *Corequisites:* SOC 205, HEC 301. A developmental approach to the health care of children from infancy through adolescence with considerations to the family. The nursing process is used in assisting children and families to meet basic human needs. Five hours of theory, eighth hours of clinical experience, and one hour of campus lab per week.

NUR 360. Adult Nursing. (5-15-10); II. *Prerequisite:* Successful completion of the first five semesters of BSN curriculum. Must be officially admitted to BSN program. *Corequisites:* MATH 353, NUR 361. The study of adult clients with moderate to complex alterations in basic human needs. Emphasizes a problem solving approach using cognitive, affective, interpersonal, and psychomotor skills in meeting the needs of adult clients. Five hours of theory, 14 hours of clinical experience, and one hour of campus lab per week.

NUR 361. Introduction to Nursing Research. (3-0-3); II. *Prerequisite:* Successful completion of the first five semesters of BSN curriculum. Must be officially admitted to BSN program. *Corequisites:* MATH 353, NUR 360. An examination of the nursing research process. Emphasis is on scientific inquiry including problem-solving, nursing process, epidemiology, and research methodology. An opportunity will be provided to critique research and apply findings in a variety of health settings.

NUR 375. Transitional Courses in Clinical Nursing for the RN-Track Student. (4-12-8); I. An accelerated course in theory content and clinical experience designed to update and validate the status of the registered nurse student.

NUR 375A. Mental Health Nursing. (4-12-2). Four hours of lecture and 12 hours of clinical experience per week for four weeks in contemporary mental health nursing. Upon successful completion of this course, credit will be granted for NUR 253—Mental Health Nursing (4 credit hours) and NUR 151—Interpersonal Skills for Health Promotion. (2 credit hours).

NUR 375B. Maternity Nursing. (4-12-2). Four hours of lecture and 12 hours of clinical experience per week for four weeks in contemporary nursing of children. Upon successful completion of this course, credit will be granted for NUR 350—Nursing Care of the Child-Bearing Family. (4 credit hours).

NUR 375C. Nursing of Children. (4-12-2). Four hours of lecture and 12 hours of clinical experience per week for four weeks in contemporary nursing of children. Upon successful completion of this course, credit will be granted for NUR 351—Nursing Care of Children (4 credit hours).

NUR 375D. Adult Nursing. (4-12-2). Four hours of lecture and 12 hours of clinical experience per week for four weeks in contemporary adult nursing. Upon successful completion of this course, credit will be granted for NUR—250 Basic Nursing Concepts I (4 credit hours), NUR 251—Basic Nursing Concepts II (4 credit hours), and NUR 360—Adult Nursing (10 credit hours).

NUR 450. Community Health Nursing. (4-12-4); I. Half semester course. *Prerequisite:* Successful completion of first six semesters of BSN curriculum. *Corequisites:* NUR 452, SPCH 370, DATA 516. Focus of this course is on community and mental health principles. Emphasis is on nursing care of clients in all stages of development along with family and selected groups within a variety of community settings. Four hours of theory and 12 hours of clinical experience per week.

NUR 451. Geriatric Nursing. (4-12-4); I. Half semester course. *Prerequisite:* Successful completion of first six semesters of BSN curriculum. *Must be officially admitted to BSN program.* *Corequisites:* NUR 452, SPCH 370, DATA 516. Geriatric nursing designed for the senior students to bridge and synthesize concepts extracted from multiple disciplines in applying the nursing process in the care of the aged. Four hours of theory and 12 hours of clinical experience per week.

NUR 452. Teaching and Learning in Health Care. (2-0-2); I. Prerequisite: Successful completion of the first six semesters of BSN curriculum. *Must be officially admitted to BSN program.* *Corequisites:* NUR 450 and 451, SPCH 370, DATA 516. Study of theory and concepts of teaching and learning in promoting wellness. Emphasis is placed on the nurse's role in health teaching and application of principles of health promotion. Two hours of theory per week.

NUR 460. Nursing Leadership and Management. (4-12-4); II. Half semester. *Prerequisite:* Successful completion of the first seven semesters of BSN curriculum. *Must be officially admitted to BSN program.* *Corequisites:* NUR 470 and 471. Focuses on the leadership role of the nurse. Examines management functions, principles of administration, health care systems, leadership strategies, and the process of change. Clinical experiences are designed to develop skills needed to assume nurse leadership positions in a variety of health care settings. Four hours of theory and 12 hours of clinical experience per week.

NUR 470. Advanced Clinical Concepts. (4-12-4); II. (For spring semester senior nursing students only.) An introductory course in nursing for individuals at various stages of the life span who require multiple and complex nursing skills. The physiological and psychosocial aspects are emphasized along with the nurse's role in assuming responsibility for assessing and monitoring the status of clients and implementing appropriate nursing actions. Four hours theory and 12 hours of clinical experience per week. Upon request of six or more students this course may be taken in the following areas: 470A—Coronary and Intensive Care Nursing, 470B—Operating Room and Recovery Room Nursing, 470C—Trauma Nursing in the Emergency Room, 470D—Community-Mental Health Nursing, 470E—Nursing of Children, 470F—Child-bearing Family, and 470G—Nursing of Adults.

NUR 471. Issues and Trends in Nursing. (2-0-2); II. Must be officially admitted to the nursing program and have senior standing. A study of issues relevant to nursing. Historical, social, legal, legislative, and ethical issues are considered. Two hours of theory per week.

NUR 472. Independent Study in Nursing. (1-3 credits); I, II, III. Prerequisites: Must be officially admitted to BSN program and be a junior or senior level nursing student. Opportunity for in-depth study in an area of special interest in nursing.

NUR 473. Health Care Management of Children. (3-0-3). Open to non-nursing majors. Promotion of wellness of children and adolescents with emphasis on meeting the health care needs of children in the classroom and home. Discussion of basic first aid, common acute, and chronic illness in children.

NUR 474. Women and Health. (3-0-3). Open to non-nursing majors. Exploration of body processes and body experience of women throughout the life cycle. Emphasis on health promotion and consumerism.

NUR 475. Human Sexuality: A Holistic Viewpoint. (3-0-3). Open to non-nursing majors. A study of the biopsychosocial factors inherent with the sexuality of man and their influences on man's behavior.

Office Administration

OADM 111. Beginning Typewriting. (3-0-3); I, II. Mastery of the keyboard and machine techniques. Emphasis on development of rapid and accurate typewriting skills and application of these skills to fundamental communication forms, manuscripts, and tabulation.

OADM 112. Intermediate Typewriting. (3-0-3); I, II. Prerequisite: OADM 111 or equivalent, or consent of instructor. Development of speed and accuracy. Business letter styles, manuscripts, and various business forms emphasized.

OADM 131. Shorthand I (3-0-3); I. Prerequisite: OADM 111 or equivalent. Fundamental principles of Gregg Shorthand. The development of skill in reading, writing, and transcribing. Designed for students with no previous shorthand instruction.

OADM 136. Business Calculations. (3-0-3); I, II. Business problem solutions with aid of calculating machines. Payroll, banking, credit, insurance, investments, depreciation, amortization, weights and measures, distribution of goods, statistics.

OADM 190. Office Accounting. (3-0-3); I, II, III. Accounting systems and financial records for professions, small businesses, and institutions. Practice sets simulate accounting cycle.

OADM 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various office administration subjects will be presented periodically to supplement the basic course offerings in office administration. Credit toward degree programs must be approved by the student's advisor.

OADM 210. Word Processing I. (3-0-3); I, II. Prerequisites: OADM 111, ENG 101. Introduction to word processing concepts, review of English mechanics, editing and proofreading applications, filing rules and systems.

OADM 213. Advanced Typewriting. (3-0-3); II. Prerequisite: OADM 112 or equivalent. Production typewriting stressed. Emphasis on typing business letters, memorandums, manuscripts, statistical reports, and specialized business forms and reports.

OADM 220. Word Processing II. (3-0-3); I, II. Prerequisites: OADM 112 and OADM 210. Introduction to machine dictation/transcription; text-editing word processing application; electronic storage and retrieval.

OADM 232. Shorthand II. (3-0-3); II. Prerequisite: OADM 131 or equivalent. Mastery of principles of Gregg Shorthand emphasizing speed and accuracy in reading, writing, vocabulary, punctuation, spelling, and mailability.

OADM 234. Specialized Office Procedures. (3-0-3); II. Prerequisite: OADM 220. *Medical secretarial studies students will also need AHS 302 as a prerequisite.* Materials, methods, techniques for the legal and medical secretary, with emphasis on office routine, information processing, human relations. Students work on individualized basis.

OADM 321. Business Communications. (3-0-3); I, II, III. Prerequisites: ENG 102 and typewriting competency. Current principles in business letter and report writing, stressing human relations approach.

OADM 331. Shorthand III. (3-0-3); I. Prerequisite: OADM 232 or equivalent. Accuracy and speed in writing and transcribing Gregg Shorthand. Emphasis on mailability.

OADM 340. Simulated Office Education. (3-0-3); I, II. Prerequisites: OADM 112, OADM 136, and OADM 220. Bridging the gap between theoretical classroom learning and employment preparation through simulation of the real work involved in office occupations within a specific company.

OADM 363. Office Management. (3-0-3); I, II, III. Management of data; effects of environment as it relates to production in the office. Human relations, systems analysis, and implication of automated data processing.

OADM 398. Supervised Field Experience. (1 to 3 hrs.); I, II, III. To provide work experience in an occupational area. Student works under supervision in approved position. Credit commensurate with time worked, type of work, variety of work experience.

OADM 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various office administration subjects will be presented periodically to supplement the basic course offerings in office administration. Credit toward degree programs must be approved by the student's advisor.

OADM 431. Shorthand IV. (3-0-3); on demand. Prerequisite: OADM 331 or equivalent. Dictation and transcription of five-minute speed tests and mailable letters of increased difficulty. Office-style dictation and transcription.

OADM 475. Methods of Teaching Business Subjects. (4 to 5 hrs.); I. Prerequisites: senior standing and formal admission to teacher education program. Introduction to vocation business and office education; approaches, objectives, lesson plans, skill building techniques, methods, materials, teaching aids, testing, measurement, grading. Secretarial studies majors register for 4 hrs. credit and basic business majors register for 5 hrs. credit.

OADM 476. Special Problems in Office Administration. (1 to 3 hrs.); I, II, III. Prerequisite: open to majors and minors in office administration with prior consent of advisor. This course is an independent study of office administration problems of special interest. Students must present in writing a suggested problem and justification for the study prior to registration. Each request will be considered on its own merit in relation to the special needs of the student.

OADM 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

OADM 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various office administration subjects will be presented periodically to supplement the basic course offerings in office administration. Credit toward degree programs must be approved by the student's advisor.

Personal Development Institute

PDI 100. Personal Development. (1-0-1); I, II. This is an elective course structured in the Institute format. The course covers such areas as: personality enhancement, attitude improvement, building self-esteem, visual poise, sharpening social skill, vocabulary expansion, interview preparation, and improved interpersonal relationships.

Philosophy

PHIL 200. Introduction to Philosophy. (3-0-3). Alternative views concerning the nature of reality, knowledge, truth, God, man, art, and the good life.

PHIL 300. Philosophy of Science. (3-0-3). Scientific methods and explanation; the role of mathematics in empirical science; and theories of matter, space, time, motion, and causality.

PHIL 303. Social Ethics. (3-0-3). Theoretical and practical problems of moral conduct and proposed solutions to them.

PHIL 306. Logic. (3-0-3). Informal fallacies, the methods of constructing deductive and inductive arguments, and the ways of justifying or testing them.

PHIL 307. Philosophy of Religion. (3-0-3). Proposed sources of religious knowledge and the meaning of God, Jesus, sin, and salvation in four major theories of the universe.

PHIL 308. Philosophy of the Arts. (3-0-3). Major theories of art, aesthetic experience, the structure of art, problems in aesthetics, and art criticism.

PHIL 309. Existentialism. (3-0-3). Theories of the nature of reality, knowledge, and the good life from the point of view of those who appeal to our "existing situation" rather than reason.

PHIL 310. Analysis of Ideas. (3-0-3). Prerequisite: PHIL 200 or consent of the department. Analysis of statements and the application of this technique to basic statements in the various sciences.

PHIL 311. Ordinary Language Philosophy. (3-0-3). Prerequisite: any one of the following courses: PHIL 200, 505, 506. An introduction to a contemporary philosophy which attempts to solve philosophical problems by appealing to language as ordinarily used.

PHIL 312. Symbolic Logic. (3-0-3). Prerequisite: permission of instructor. Introduction to methods of constructing and justifying deductive arguments as they have been developed by the use of modern symbols.

PHIL 313. American Philosophy. (3-0-3). Prerequisite: PHIL 200 or consent of the department. A survey of philosophical thought in America from the eighteenth century to the present with special attention given to the Pragmatists.

PHIL 389. Honors Seminar in Philosophy. (3-0-3). Prerequisite: membership in the Junior-Senior Honors Program. Contemporary moral issues are examined, discussed, and evaluated. The topics may vary from semester to semester.

PHIL 410. Contemporary Philosophy. (3-0-3). An examination, interpretation, and evaluation of the philosophic ideas of leading representatives of twentieth-century philosophies.

PHIL 476. Special Problems. (1 to 3 hrs.). Prerequisite: 12 hours in philosophy or consent of the department. The student selects an approved topic in philosophy on which to do a directed study.

PHIL 505. History of Philosophy I. (3-0-3). Ancient and Medieval philosophy; a history of Western philosophy from Thales (624-546 B.C.) to the beginning of the Renaissance.

PHIL 506. History of Philosophy II. (3-0-3). Modern and contemporary philosophy; a history of Western philosophy from the Renaissance to the present.

Physical Education

PHED 100. Golf. (0-2-1); I, II, III. Emphasis on skill, knowledge, and techniques for individual participation.

PHED 101. Tennis. (0-2-1); I, II, III. Emphasis on skill, knowledge, tactics, and techniques for individual participation.

PHED 102. Badminton. (0-2-1); I, II, III. Emphasis on skill, knowledge, tactics, and techniques for individual participation.

PHED 103. Archery. (0-2-1); I, II, III. Emphasis on skill, knowledge, tactics, and techniques for individual participation.

PHED 104. Gymnastics. (0-2-1); I, II. Emphasis on self-testing activities.

PHED 105. Conditioning. (0-2-1); I, II. Emphasis on developing fitness through a variety of exercises and activities.

PHED 106. Wrestling. (0-2-1); I, II. Holds, escapes, and conditioning necessary to perform skills.

PHED 107. Bowling. (0-2-1); I, II, III. Basic movement skills involved in bowling.

PHED 108. Restricted Physical Education. (0-2-1); I, II. Students with either a structural or functional problem. (May be repeated one time for credit.)

PHED 109. Elementary Horsemanship. (0-2-1); I, II. (Same as AGR 109.)

PHED 110. Judo. (0-2-1); II. Throws used in sport judo.

PHED 111. Angling. (0-2-1); I, II, III. Skills used in fly and bait casting.

PHED 112. Handball. (0-2-1); I, II. Emphasis on knowledge, tactics, skill, and techniques for individual participation.

PHED 113. Soccer. (0-2-1); I, II. Techniques and participation in soccer.

PHED 114. Track and Field. (0-2-1); I, II. Emphasis on skill, knowledge, and techniques for individual participation.

PHED 115. Apparatus. (0-2-1); I, II. Skills used in self-testing activities.

PHED 116. Lacrosse. (0-2-1); I. Basic skills in lacrosse.

PHED 117. Stunts and Tumbling. (0-2-1); I, II. Skills that promote strength, individual control and development, and group perfection.

PHED 118. Volleyball. (0-2-1); I, II, III. Rules, techniques, and participation in volleyball.

PHED 119. Intermediate Horsemanship. (0-2-1); I, II. *Prerequisite:* PHED 109 or equivalent. (Same as AGR 119.)

PHED 120. Basic Rhythms. (0-2-1); I, II, III. Skills and knowledge in fundamentals of dance.

PHED 121. Modern Dance. (0-2-1); I, II. Movement as means of self expression.

PHED 122. Social Dance. (0-2-1); I, II. Steps and combination of popular dances.

PHED 123. Folk and Square Dancing. (0-2-1); I, II. Movements of American square dance.

PHED 124. Canoeing. (0-2-1); I, III. Emphasis on skill, knowledge, and tactics in all types of streams.

PHED 125. Basketball Skills. (0-2-1); I, II. Skills of basketball.

PHED 127. Racquetball. (0-2-1); I, II. Emphasis on skill, knowledge, and strategy.

PHED 130. Beginning Swimming. (0-2-1); I, II, III. Learning to swim well enough to care for one's self under ordinary conditions.

PHED 131. Intermediate Swimming. (0-2-1); I, II, III. Perfection of standard strokes, diving.

PHED 132. Life Saving. (0-2-1); I, II, III. Rescue methods in all types of water.

PHED 133. Instruction to Water Safety. (0-2-1); I, II. *Prerequisite:* current Senior Lifesaving Certificate. Teaching methods and techniques in lifesaving

PHED 135. Field Hockey. (0-2-1); II. Skills and techniques in field hockey.

PHED 138. Fencing. (0-2-1); I, II. Emphasis on skill, knowledge, and strategy.

PHED 150. Introduction to Physical Education. (2-0-2); I, II, III. Principles and basic philosophy, aims, and objectives; standards; and significance in profession of physical education.

PHED 204. Officiating. (2-0-2); I, II. Interpretation of rules for major sports. Methods and techniques of officiating; laboratory experience in officiating.

PHED 205. Lifetime Fitness (A Scientific Approach). (2-2-3); I, II. *Prerequisite:* complete physical examination within last year. Designed to provide the student with scientifically-based knowledge concerning practical application of physical fitness training and evaluation procedures while participating in a fitness program.

PHED 206. Rhythmical Activities in the Elementary School. (1-1-2); I, II. Body mechanics and posture taught to rhythmical patterns.

PHED 207. Training Room Modalities. (1-1-2); I, II. *Prerequisites:* PHED 203, 302. Emphasis on participation and use of machinery.

PHED 208. Medical Aspects of Athletic Training. (1-1-2); I, II. *Prerequisite:* PHED 302. Relationships existing between training programs and medical society, including case history studies.

PHED 209. Training Room Practice. (1-1-2); I, II. *Prerequisite:* PHED 302. Work-participation situation involving student in training room work.

PHED 210. Diagnostic Techniques of Athletic Injuries. (1-1-2); I, II. *Prerequisite:* PHED 302. Diagnosis of athletic injuries.

PHED 211. Lifeguard Training. (1-1-2); I, II, III. *Prerequisite:* PHED 132 or C.P.R. card. Responsibilities of lifeguards, equipment, health and sanitation, and inspection of waterfront areas.

PHED 222. Individual Sports I. (1-1-2); I, II. Emphasis on development of performance skills, teaching techniques, and officiating in tennis, badminton, and racquetball.

PHED 223. Individual Sports II. (1-1-2); I, II. Emphasis on development of performance skills and teaching techniques in cycling-exercise program, archery, and golf.

PHED 300. Physical Education in the Elementary School. (2-0-2); I, II, III. *Prerequisite:* admission to the teacher education program. Selection and organization of materials and techniques of instruction for elementary school program. (Laboratory experiences are integral part of course.)

PHED 301. Evaluation in Health, Physical Education, and Recreation. (3-0-3); I, II, III. Methods, techniques, and procedures used in evaluation of students in health, physical education, and recreation.

PHED 302. Athletic Injuries. (2-0-2); III. Theory and practice of massage, bandaging, taping, and caring for athletic injuries.

PHED 303. Physical Education in the Secondary School. (2-0-2); I, II, III. *Prerequisite:* admission to teacher education program. Selection and organization of materials and techniques of instruction for secondary school program.

PHED 304-305. Affiliation in Physical Education. (0-2-1); I, II. Students will observe and assist a staff member in one or more of the service classes.

PHED 308. Baseball Techniques. (2-0-2); I, II. Theoretical and practical aspects of baseball theory.

PHED 309. Team Sports I. (1-1-2); I, II. Emphasis on development of performance skills, teaching techniques, and officiating in volleyball and soccer.

PHED 311. Movement Exploration. (2-1-3); I, II. Child-centered program and demonstrate methods whereby a child may learn to move experimentally, expressively, and efficiently.

PHED 312. Individual and Team Games for Elementary School. (2-3-4); I, II. Emphasis on development of individual skills in team game atmosphere.

PHED 319. Team Sports II. (2-0-2); I, II. Emphasis on development of performance skills, teaching techniques, and officiating in basketball and softball.

PHED 401. Organization and Administration of Physical Education. (3-0-3); I, II, III. Arrangement of units making up physical education program, and process of leadership by which serious aspects are brought together in a functioning whole.

PHED 402. Kinesiology. (3-0-3); I, II, III. Study of human action.

PHED 409. Team Sports III. (2-0-2); I, II. Emphasis on development of performance skill and teaching techniques in football.

PHED 419. Team Sports IV. (2-0-2); I, II. Emphasis on the development of performance skills and teaching techniques in cross country, track and field, and field hockey.

PHED 420. Administration of School Athletic Programs. (3-0-3); I, II. Administrative principles and procedures applicable to school athletic program.

PHED 422. Coaching Inter-Scholastic Athletics. (3-0-3); I, II. Emphasis on coaching techniques of inter-scholastics.

PHED 432. Physiology of Exercise. (3-0-3); I, II, III. *Prerequisite:* PHED 402. Study of response of the body to muscular activity; work and efficiency, cardiorespiratory adjustment, training, and fitness. (Laboratory experiences are integral part of course.)

PHED 475. Adapted Physical Education. (2-0-2); I, II. Problems of exceptional students and means whereby these students can be aided through physical education.

PHED 576. Special Problems in Physical Education. (1 to 3 hrs.); I, II. *Prerequisite:* upper division or graduate classification. Course to meet the special needs of individual students.

PHED 599. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in physical education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

Physics

PHYS 199. Selected Topics. (1 to 6 hrs.); on demand.

PHYS 201. Elementary Physics I. (3-0-3); I, II, III. *Prerequisite:* working knowledge of algebra and trigonometry. Mechanics and heat; Newton's law of motion, energy and momentum, and heat transfer.

PHYS 201A. Elementary Physics I Laboratory. (0-2-1); I, II, III. *Must take concurrently with PHYS 201.* Laboratory for PHYS 201.

PHYS 202. Elementary Physics II. (3-0-3); I, II, III. *Prerequisite:* PHYS 201. Electricity and magnetism, light, nuclear and atomic physics.

PHYS 202A. Elementary Physics II Laboratory. (0-2-1); I, II, III. *Must take concurrently with PHYS 202.* Laboratory for PHYS 202.

PHYS 211. Circuits. (3-2-4); II. *Prerequisite:* MATH 275; *corequisite:* PHYS 232. Linear circuits consisting of passive and active circuit elements; sinusoidal-forcing functions and phasors; steady-state response.

PHYS 212. General Physics Problems. (2-0-2); I. *Prerequisite:* PHYS 202. *Corequisite:* MATH 275. Selected problems from engineering physics. Application of elementary calculus to the solution of general physics problems. (This course is designed exclusively for students who have completed PHYS 201 and 202 and are interested in taking additional upper-division physics courses. For courses for which PHYS 231 and 232 are the recommended prerequisites, the sequence PHYS 201, 202, and 212 is acceptable in lieu of PHYS 231 and 232 except for students in the pre-engineering program.)

PHYS 221. Statics. (3-0-3); II. *Corequisite:* MATH 276. Vector algebra, moments of force, equivalent force systems, equilibrium, trusses, frames, friction, centroids, and center of mass.

PHYS 231. Engineering Physics I. (4-0-4); I. *Corequisite:* MATH 275. Introduction to physics for scientists and engineers. Statics, kinetics, and dynamics of linear and rotational motion, gravitational fields; thermal properties of matter and heat transfer.

PHYS 231A. Engineering Physics I Laboratory. (0-2-1); I. *Must be taken concurrently with PHYS 231.* Laboratory for PHYS 231.

PHYS 232. Engineering Physics II. (4-0-4); II. *Prerequisite:* PHYS 231. Electromagnetism, optics, atomic and nuclear physics.

PHYS 232A. Engineering Physics II Laboratory. (0-2-1); II. *Must be taken concurrently with PHYS 232.* Laboratory for PHYS 232.

PHYS 250. Light, Color, Cameras, and Perception. (3-0-3); I, II. A non-mathematical study of the phenomena of light and perception. Applications of light and color are presented in art, psychology, photography, and other areas.

PHYS 299. Selected Topics. (1 to 6 hrs.); on demand.

PHYS 320. The Science of Music. (3-0-3); I, II. Properties of sound, the hearing process, musical scales, production of music by wind and stringed instruments, electronic recording and reproduction, and architectural acoustics.

PHYS 332. Electricity and Magnetism. (4-0-4); II in alternate years. *Prerequisite:* PHYS 232. Classical electricity and magnetism, Maxwell's equations, Lorentz force equation; electrodynamics, electrostatics, and magnetostatics; circuit theory, electromagnetic waves, and radiating systems.

PHYS 340. Experimental Physics. (1-4-3); I. *Prerequisite:* PHYS 232. Selected experiments from classical and modern physics. Computer analysis and simulation.

PHYS 350. Nuclear Science. (3-2-4); II. *Prerequisite:* PHYS 202 or 232. Interdisciplinary course in nuclear science for students in pre-medicine, environmental studies, physics, chemistry, geology, pre-dentistry, and pre-veterinary medicine.

PHYS 352. Concepts of Modern Physics. (3-0-3); I. *Prerequisite:* PHYS 232. Special relativity, quantum mechanics, atomic and molecular structure, solid state and nuclear physics.

PHYS 361. Fundamentals of Electronics. (2-2-3); I. *Prerequisite:* PHYS 202-202A or 232-232A. A survey of electronics: components, basic circuits such as amplifiers and oscillators, feedback, op-amps, digital circuits, microprocessors, and interfacing.

PHYS 381. Computer Solutions to Engineering and Science Problems. (3-0-3); II. *Prerequisites:* PHYS 232 and DATA 260. Applications of computer programming to problems in engineering and physics. Problems will be selected from statics, dynamics, mechanics of materials, thermodynamics, and electricity and magnetism, with an extended problem selected from the student's major area of interest.

PHYS 391. Dynamics. (3-0-3); I. *Prerequisite:* Physics 221 or 231. A study of motion of bodies. Kinematics and dynamics of particles and rigid bodies; work and energy; impulse and momentum.

PHYS 399. Selected Topics. (1 to 6 hrs.); on demand.

PHYS 410. Solid State Physics. (3-0-3); on demand. *Prerequisite:* PHYS 352. Lattice dynamics, electrons in metals, semiconductors, and dielectric and magnetic properties of solids.

PHYS 411. Thermodynamics. (3-0-3); II. *Prerequisite:* PHYS 231. First and second laws of thermodynamics, power and refrigeration cycles, statistical thermodynamics, relations among properties, and equations of state.

PHYS 412. Light and Physical Optics. (3-0-3); on demand. *Prerequisite:* PHYS 232. Dualistic nature of light; interference, refraction, reflection, diffraction, polarization, laser action, and spectra.

PHYS 452. Nuclear Physics. (3-0-3); on demand. *Prerequisite:* PHYS 232. Binding energies, nuclear forces, transmutation of nuclei; natural and artificial radioactivity.

PHYS 481. Mathematics for Engineers and Scientists. (3-0-3); I. *Prerequisite:* MATH 276. Fourier series, ordinary and partial differential equations, special functions, and integral transforms. See MATH 481.

PHYS 493. Quantum Mechanics. (3-0-3); on demand. *Prerequisite:* PHYS 391 or consent of instructor. The wave function; Hermitian operators and angular momentum; Schrodinger's equation, barriers, wells, harmonic oscillators, and the hydrogen atom.

PHYS 499. Selected Topics. (1 to 6 hrs.); on demand.

Psychology

PSY 154. Introduction to Psychology. (3-0-3); I, II, III. Course concerning application of psychological theories and principles in area of personality, abnormal psychology, clinical psychology, psychodiagnostics, developmental psychology, psychotherapy and counseling; includes some understanding of methods used in personality and clinical research.

PSY 156. Life-span Developmental Psychology. (3-0-3); I, II. *Prerequisite:* PSY 154 or consent of instructor. Covers developmental theories, principles, and characteristics of individuals across three major developmental periods: infancy and childhood, adolescence, and adulthood.

PSY 157. Psychology of Adjustment. (3-0-3); I. *Prerequisite:* PSY 154 or consent of instructor. Overview of processes and adaptation and personal adjustment in family, group, and work settings. Personality theories of Erikson, White, and others applied to process of developing for the individual a sense of competence and means of resolution of crises during life cycle.

PSY 199. Workshop (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in psychology. May be repeated in additional subject areas. Maximum of 6 sem. hrs. may be earned under this course number.

PSY 276. Independent Study (1 to 3 hrs.); I, II, III. Professional problem in psychology.

PSY 353. Industrial Psychology. (3-0-3); II. *Prerequisite:* PSY 154. Applied experimental and engineering psychology. Surveys of basic engineering data with emphasis on experimental pro-

cedure, receptive and motor capacities, and their application to equipment design and other problems.

PSY 354. Introduction to Social Psychology. (3-0-3); I. Prerequisite: PSY 154. Scientific study of individual's relationship with social environment. Emphasis on attitudes, personality, prejudice, discrimination, dominance, role theory, social learning, social and interpersonal perception, and social movement.

PSY 381. Experimental Psychology I. (2-2-3); I. Prerequisites: PSY 154 and EDSP 581 or MATH 353. Study of experimental methods and design related to sensation, perception, discrimination, learning, forgetting, and retention. (Laboratory experiences are integral part of course.)

PSY 390. Psychology of Personality. (3-0-3); I, II. Prerequisite: PSY 154. Introduction to major approaches, methods, and findings in field of personality, including overview of basic theories, strategies, issues, and conclusions; attention to assessment and personality change.

PSY 399. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in psychology. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

PSY 422. Comparative Psychology. (3-0-3); II. Prerequisite: PSY 154. Theory and application of field and laboratory techniques used in understanding behavior of animals. Areas include: instinct, learning, motivation, sensory discrimination, heredity, and perception.

PSY 470. Research Problems. (1 to 3 hrs.); I, II, III. Independent research study of professional problem. Conferences with instructor by arrangement.

PSY 521. Physiological Psychology. (3-0-3); II. Prerequisite: PSY 154. Physiological mechanisms of normal human and animal behavior. Anatomy and physiology relevant to study of sensory and motor functions, emotion, motivation, and learning.

PSY 554. Seminar in Social Psychology. (3-0-3); II. Prerequisite: PSY 154 or consent of instructor. Intensive examination of research methods and theory in modern social psychology.

PSY 555. Environmental Psychology. (3-0-3); II. Prerequisite: PSY 154. Study of ways in which social and physical environments affect human behavior. Direct effects of physical settings on behaviors, individual utilization of various physical settings, analysis of personal space utilization, and other non-verbal behaviors examined.

PSY 556. Introduction to Clinical Psychology. (3-0-3); I. Prerequisite: PSY 154. Survey of basic theoretical issues and research in areas of assessments and psychotherapy. Consideration of ethical, legal, and other professional problems in clinical psychology. Emphasis on clinical aspects of school psychologist's functions in working with school age children.

PSY 558. Psychological Testing. (3-0-3); II. Prerequisite: PSY 154. General introduction to psychological testing. Topics include interest inventories, measurement and evaluation of personality, measurement of proficiency, performance, attitudes, temperament, aptitude, capacity, and intelligence through use of group assessment instruments used in psychological research, guidance, education, social research, business, and industry.

PSY 559. Behavior Modification. (2-2-3); II, III. Prerequisite: PSY 154. Operant learning principles that govern human behavior applied to modification of behavior in school setting. Course is designed to give experience in dealing with behavioral problems in classroom and other settings. (Laboratory experiences are integral part of course.)

PSY 575. Selected Topics. (2-2-3 to 6 hours); I, II, III. Prerequisite: consent of instructor. Various methods courses in instrumentation and data reduction, innovation and research design, directed study of special problems in psychology, various application courses and others.

PSY 576. Seminar in Developmental Research. (3-0-3); II. Prerequisite: PSY 156 or permission of instructor. Intensive examination of research and contemporary developmental psychol-

ogy. Emphasis on reading and evaluating current journal articles and designing research projects.

PSY 582. Experimental Psychology II. (2-2-3); II. Prerequisite: PSY 381 or consent of instructor. A seminar course in experimental psychology emphasizing content areas of learning, motivation, perception, and physiological psychology. Course is designed to give student practice in critical thinking, evaluation of experimental design, and original research, and affords student an opportunity to present and debate his or her own ideas. (Laboratory experiences are an integral part of course.)

PSY 583. Sensory Psychology. (3-0-3); I. Prerequisites: PSY 154 and EDSP 581 or MATH 353. Biological and physical bases of sensory experience. Presentation of psychophysical data and basic techniques for scaling of sensation. Coverage of all sensory systems with primary emphasis on vision and audition.

PSY 584. Perception. (2-2-3); III. Prerequisite: PSY 154. Examination of role of perception as an information extraction process. Includes constancies, space perception, illusions, and influence of learning and experience on development of perception. (Laboratory experiences are integral part of course.)

PSY 585. Systems and Theories. (3-0-3); I. Prerequisites: PSY 154 and EDSP 581 or MATH 353. Intensive study of most influential historical systems of psychology including structuralism, functionalism, associationism, behaviorism, Gestalt psychology, and psychoanalysis, and a treatment of contemporary developments.

PSY 586. Motivation. (2-2-3); II. Prerequisite: PSY 154. Consideration of bases of human and animal motivation in relation to other psychological processes. (Laboratory experiences are integral part of course.)

PSY 589. Psychology of Learning. (3-0-3); I, III. Prerequisite: PSY 154. Fundamental principles of learning, including acquisition, retention, forgetting, problem solving, and symbol formation; experimental studies; application of principles to practical problems in habit formation, development skills, remembering, and logical thinking.

PSY 590. Abnormal Psychology. (3-0-3); I, II, III. Prerequisite: PSY 154. Psychology, behavior, and treatment of individuals having superior or inferior mental abilities, perceptual handicaps, orthopedic problems, and behavioral disorders; general methods used in therapy, and research in this area.

PSY 591. Application on SPSS to the Life Sciences. (1-1-1); I. Prerequisite: Math 353 or EDSP 581 or consent of instructor. Application of descriptive and inferential statistics by SPSS computer package for data analyses in life sciences.

PSY 592. Application of BMD to the Life Sciences. (1-1-1); I. Prerequisite: MATH 353 or EDSP 581 or consent of instructor. Application of descriptive and inferential statistics by BMD computer package for data analyses in life sciences.

PSY 593. Application of SAS to the Life Sciences. (1-1-1); I. Prerequisite: MATH 353 or EDSP 581 or consent of instructor. Application of descriptive and inferential statistics by SAS computer package for data analyses in life sciences.

PSY 599. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in psychology. May be repeated in additional subject areas. Maximum of six semester hours may be taken.

Radio-Television

R-TV 110. Introduction to Mass Communications. (3-0-3); I. (See Journalism 110.)

R-TV 150. Introduction to Broadcasting. (3-0-3); I, II. Basic conditions of the broadcasting industry from regulation to advertising. Students will also learn the basics of everyday station operations.

R-TV 151. Introduction to Broadcast Techniques. (2-0-2); I, II. Familiarization with radio, television, and film equipment utilized in studio and remote broadcast productions.

R-TV 155. Broadcast Performance. (3-0-3); I, II. Fundamentals of broadcast announcing, emphasis on vocal communication skills of enunciation, pronunciation, inflection, and pacing.

R-TV 240. Writing for Broadcast. (3-0-3); I, II. *Prerequisite:* R-TV 151 and a proficiency in typing. Techniques used in writing commercials and programs for radio and television. Emphasis is placed on storyboards and advertising presentation.

R-TV 250. Audio Production and Direction. (3-2-4); I, II. *Prerequisite:* R-TV 151. Discussion of all areas of audio production, including radio, television, audio, and film audio with practical work in radio production.

R-TV 283. Basic Black and White Photography. (2-2-3); I, II. See ART 283.

R-TV 320. Broadcast Advertising/Sales. (3-0-3); I. *Prerequisite:* R-TV 240. Provides a foundation in both practical and theoretical aspects of broadcast advertising. Principles of sales will be examined from the perspective of the advertising copywriter.

R-TV 338. Radio Operating Practices. (1-0-1); I, II. (See IET 338). Basic Law, technical operating practices, meter reading, and electronic fundamentals necessary in the operation of a broadcast facility.

R-TV 340. Video Production and Direction I. (2-2-3); I, II. *Prerequisite:* R-TV 151 and 240 or permission of instructor. Basic television production techniques and introduction of directing skills in a laboratory situation.

R-TV 344. Broadcast News and Public Affairs. (3-0-3); I, II. *Prerequisite:* 9 hours of undergraduate radio-TV or consent of the instructor. Theory and practice of news and public affairs writing and reporting as it applies to the broadcast media.

R-TV 357. Sportscasting. (2-2-3); I. Philosophy and techniques utilized in developing style of presentation in sports broadcasts. Theory practically applied in play-by-play description, interviewing, and presentation of copy. (Cross referenced as JOUR 357.)

R-TV 358. Sports Writing. (3-0-3); II. *Prerequisite:* JOUR 201. Philosophy and techniques in writing sports news and sports analysis or commentary for mass media. Same as JOUR 358.

R-TV 379. Field Study Experience. (3-0-3); III. (May be repeated for credit when topics vary.) *Prerequisite:* consent of instructor. Participants will travel to a major broadcasting center and tour commercial network, major independent, public cable, and satellite broadcast facilities. Will also include related media facilities, news services, public relations and advertising agencies, government facilities and agencies; discussions and informal seminars with practicing professionals and officials in their fields of expertise.

R-TV 383. High Contrast Photography. (2-2-3); I, II. (See ART 283.)

R-TV 420. Feature and Documentary Writing for Broadcast. (3-0-3); I. *Prerequisite:* R-TV 340. Advanced theory and practices of writing for the broadcast medium. Emphasis placed on writing and producing features and documentaries for radio and television.

R-TV 423. Advanced Commercial and Continuity Writing. (3-0-3); II. *Prerequisite:* R-TV 240. Script writing techniques for the advanced broadcast copywriter. Practice in writing various types of commercials, continuities, and formats for radio and television.

R-TV 440. Video Production and Direction II. (3-3-4); I, II. *Prerequisite:* R-TV 340, junior standing and consent of instructor. Extension of R-TV 340, with advanced instruction in studio operations. Emphasis upon the opportunity to produce and direct several program types and to serve on crews for such production.

R-TV 445. Electronic Field Production. (3-0-3); III. *Prerequisite:* R-TV 340 and consent of instructor. Theory and practice in the production of commercial and feature production outside the studio using a single-camera technique, including post-production electronic editing and production techniques.

R-TV 450. Broadcast Management. (3-0-3); II. *Prerequisite:* 18 hours of undergraduate radio-television or consent of instructor. Examination of administrative decision-making in radio

and television with attention to programming, research, audience, sales, regulatory, and personnel concerns. Special attention is given to the purpose and basic idea of programs in relation to audience composition.

R-TV 451. Professional Audio Practices. (2-2-3); II. *Prerequisite:* R-TV 250—Audio Production and Direction I and consent of instructor. Experience and advanced study in areas such as music recording and sound, its relation to television, film, multi-media, and radio production.

R-TV 459. Broadcast Law and Regulation. (3-0-3); I. Basic regulatory law and policy examined in terms of application to daily station operation and from historical and socio-economic perspectives.

R-TV 550. Problems in Contemporary Broadcasting. (3-0-3); I. *Prerequisite:* junior standing and consent of instructor. Treatment of current problems within the broadcasting industry.

R-TV 558. Public Broadcasting. (3-0-3); I. *Prerequisite:* junior standing and consent of the instructor. Study of the development of public broadcasting from both theoretical and operational standpoints.

R-TV 560. History of Broadcasting. (3-0-3); I. *Prerequisite:* junior standing and consent of instructor. Historical study of radio-television as a communication service and its development in America.

R-TV 562. Broadcast Criticism. (3-0-3); II. *Prerequisite:* junior standing and consent of instructor. Examination of broadcasting in sociological, aesthetic, historical, psychological, and humanistic terms.

R-TV 580. New Technology Policy and the Communications Industry. (3-0-3); III. *Prerequisite:* junior standing and consent of instructor. Examines both broadcast media, cable, common carriers, the sources of policy and influence which guide them, and public interest issues affected by communications media policy.

R-TV 582. American Popular Culture and Communications Technology. (3-0-3); II. *Prerequisite:* junior standing and consent of instructor. Examination of the role and effects of major advances of communications technology on the course of American popular culture and society in the past, present, and future.

Radiologic Technology

RAD 110. Radiographic Anatomy and Positioning I. (3-2-4); I. *Corequisites:* BIO 331, AHS 302. Introduction to radiographic positioning, including basic terminology relating to the structure of the human body and discussion of the physiological systems, with a thorough explanation of positioning nomenclature. Emphasis will be given to chest and abdominal radiography which will include the routine examinations demonstrating the various visceral structures of the gastro-intestinal tract, including radiological examinations of the gallbladder, bile ducts, and the urinary system. This course will prepare the students to assist or perform fluoroscopic studies, and will also cover routine positioning for the upper extremity, shoulder girdle, sternum, ribs, and clavicle.

RAD 120. Radiologic Technology I. (3-2-4); I. *Corequisites:* RAD 110. An introduction to radiologic technology, including the history of the field. Professional and medical ethics and the legal implications. Nursing procedures that are pertinent to radiology. An introduction to the production and control of ionizing radiation used in medical diagnosis with the main emphasis placed upon the x-ray tube and protection. An introduction to technical factors affecting radiographic quality. Other topics include the radiograph and image formation, as well as film processing and darkroom chemistry.

RAD 130. Clinical Internship I. (0-40-10); II. *Prerequisites:* RAD 110, 120; BIO 331, AHS 302. Clinical experience in an affiliated hospital's radiology department is specifically designed to introduce the student to areas of professional practice in radiologic technology. Departmental orientational emphasis will be placed on

patient management, patient care, and transporting responsibilities, radiological equipment knowledge, office procedures, and darkroom processing procedures. Technological emphasis will require the student to successfully achieve at least 25 clinical competencies in areas which include chest, abdominal, and gastro-intestinal radiography, as well as radiological examinations of the upper extremity, thorax, and shoulder girdle. Students will be assigned to rotate through speciality areas of radiology as available to them.

RAD 131. Special Problems—Nursing Procedures (Directed Study). (2-0-2); **II. Prerequisites:** RAD 110, 120, BIO 331, AHS 302. Nursing procedures and techniques used in the general care of the patient while in the radiology department, emphasizing the role of the radiologic technologist in performing such tasks as setting up sterile trays, preparing and transporting a patient in isolation, performing one-person or two-person C.P.R., etc. Students will be evaluated on how well they carry out the skills.

RAD 210. Radiographic Anatomy and Positioning II. (2-2-3); **III. Prerequisites:** RAD 110. This course is designed to be a continuance of RAD 110 which will emphasize the radiographic anatomy and positioning of the lower extremity, hips, pelvis, sacroiliac joints, and the entire vertebral column. Related radiographic anatomy will be demonstrated for each area reviewed.

RAD 220. Radiographic Anatomy and Positioning III. (2-2-3); **III. Prerequisites:** RAD 110, 120. **Corequisite:** BIO 210, RAD 260. A continuance in the study of radiographic anatomy and positioning, with primary emphasis in skull radiography. Also included is an in-depth study of the radiographic procedures for examination of the facial bones, nasal bones, mandible, orbits and optical foramina, paranasal sinuses, mastoids, eye localizations, and sialography. Skull radiography of the trauma patient shall be incorporated within the subject material.

RAD 230. Clinical Internship II. (0-40-10); **I. Prerequisites:** RAD 130, 131, 210, 220. **Corequisite:** RAD 231. Clinical assignment in an affiliated hospital's radiology department will provide the student with further application experience in professional knowledge. Students will be expected to continue to exhibit competencies previously acquired, and must successfully achieve 25 additional competencies in other radiographic procedures. Demonstrated competency emphasis will be placed in areas of the lower extremity, pelvic girdle, and the entire vertebral column. Students who have not had prior opportunity will be assigned to rotate through speciality areas available to them.

RAD 231. Special Problems—Radiographic Quality (Directed Study). (2-0-2); **I. Prerequisite:** RAD 120. This course takes the theory that has been examined in previous courses and shows why and how radiographic quality is important to the radiology department. Radiographic quality experiments will be done in the clinical affiliate to provide the student with the education in analyzing the radiographs by independently examining each of the multiple factors that contribute to the appearance of the image. Emphasis is placed on quality assurance used in the radiology department.

RAD 240. Radiologic Technology II. (2-2-3); **II. Prerequisites:** RAD 120, 231. A course designed to advance the study of radiographic processing, x-ray production, and image formation. Medical ethics will be explored further with specific case studies in radiologic technology. Different types of image modalities will be examined as well as quality assurance, protection, radiographic exposure, equipment maintenance, and proper usage.

RAD 250. Radiation Physics and Electronics. (2-2-3); **II. Prerequisite:** RAD 120. A study of radiation physics and electronics necessary to understand the circuitry of an x-ray machine and how x-rays are generated and produced. Topics will include the structure of matter, electrostatics, magnetism, electrodynamics, electromagnetism, rectification, and the x-ray tube.

RAD 260. Advanced Radiographic Procedures. (3-0-3); **II. Prerequisites:** RAD 110, 131, 210. An introduction into the areas of specialized radiological procedures such as cerebral angiography, with discussion of the "Seldinger Technique," catheters and

guidewire, and special procedure trays and equipment. Myelography, lymphangiography, hysterosalpingography, with discussion of contrast media utilized for "special procedures." CAT scanning with some cross-sectional anatomy, discussion of the newer imaging modalities, including nuclear magnetic resonance, digital radiography, and advancements in nuclear medicine, xeroradiography and endoscopic procedures assisted by technologists, and ultrasonography.

RAD 320. Radiation Biology and Pathology. (3-0-3); **II. Prerequisites:** RAD 110, 120, 220, BIO 331. This course will integrate film evaluation with radiologic pathology. An overall picture of how pathological conditions can be determined by a good quality radiography. Classifications of diseases by etiology and by organ systems will be examined as well as methods of diagnosis of disease. Radiation biology will also be studied as it affects the public right to minimal radiation exposure. An overall view of the effects of ionizing radiation to all the biological systems.

RAD 330. Clinical Internship III. (0-40-4); **III. Prerequisites:** RAD 130, 131, 230, 231, 330. Clinical education experience in an affiliated hospital's radiology department has been individually assigned to encourage the students in assuming their roles as new entry-level technologists. Educational advancement in special procedures, mammography, arthrography, pacemaker insertions, and tomography is emphasized. Students are expected to continue demonstration of previously earned procedural competencies, and must successfully acquire competency level in 7 additional radiographic procedures. Students who have not had prior opportunity will rotate through speciality areas available to them.

RAD 340. Clinical Internship IV. (0-40-4); **III. Prerequisites:** RAD 130, 131, 230, 231, 330. Clinical education experience in an affiliated hospital's radiology department has been assigned by the faculty of the Radiologic Technology Program to provide the student with a deeper knowledge of radiography. The student must continue to exhibit procedural competencies learned previously and must successfully achieve competency in 8 more radiological examinations. Special emphasis will be placed on advanced cranial procedures and trauma radiography. Students who have not had prior opportunity will rotate through specialized areas within the field such as special procedures, radiation therapy, ultrasonography, nuclear medicine, mammography, xerography, and CAT scanning.

Real Estate

REAL 105. Principles of Real Estate. (3-0-3); **I, II.** A general introduction to real estate as a business and profession. Acquaints the student with a wide range of subjects necessary to the practice of real estate, including license law, ethics, listing and purchase agreements, brokerage, deeds, financing, appraisal, mortgages, and property management.

REAL 139. Cooperative Study I. (1 to 8 hrs.); **on demand.** Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

REAL 199. Selected Workshop Topics. (1 to 4 hrs.); **on demand.** Workshops on various real estate subjects will be presented periodically to supplement the basic course offerings in real estate. Credit toward degree programs must be approved by the student's advisor.

REAL 239. Cooperative Study II. (1 to 8 hrs.); **on demand.** Work experience with an extension of exposure gained in REAL 139 or of a nature similar to a sophomore status course.

REAL 303. Real Estate Market Analysis. (3-0-3); **on demand. Prerequisite:** REAL 120 or consent of instructor. Designed to develop skills in analysis of real estate markets and to implement the results of this analysis in real estate sales and marketing management. Students should become proficient in the use of

quantitative tools and interpretation of data output in real estate fields.

REAL 309. Real Estate Land Planning and Development. (3-0-3); on demand. Prerequisite: REAL 105 or permission of instructor. A comprehensive course on the specialized field of land planning and development, emphasizing the field of home construction. Neighborhood analysis, house design, mechanical systems, and blueprint reading are stressed. Provides important background for developers, appraisers, brokers, and property managers.

REAL 310. Real Estate Law. (3-0-3); I. Prerequisite: REAL 105 or permission of instructor. Overview of real estate law, focusing on legal fundamentals including contracts, concepts of title, title examination and licensing law.

REAL 320. Real Estate Marketing. (3-0-3); I. Prerequisite: REAL 105 or permission of instructor. Designed to help real estate professionals with listing, prospecting, showing, negotiating, and closing. Furthermore, qualifying them, organizing, and promotional package design will be discussed. Marketing skill development is emphasized.

REAL 325. Appraisal of Residential Property. (3-0-3); I. Prerequisite: REAL 105 or permission of instructor. An introduction to the current theory and practice of real estate appraisal as taught by the professional appraisal societies. Insight into the direction of appraisal and feasibility in the future.

REAL 330. Real Estate Property Management. (3-0-3); II. Prerequisite: REAL 105 or consent of instructor. Introduction to basic organization, administrative operation, and management of residential and commercial projects of various sizes. The financial considerations, staffing, training, and evaluation of personnel, sales methods, and promotional techniques in property management.

REAL 331. Real Estate Finance. (3-0-3); I. Prerequisite: REAL 105 or permission of instructor. Introduction to the mechanisms of real estate finance, sources of funds, principles of mortgage risk analysis, governmental agency roles, and cash flows.

REAL 335. Real Estate Investment. (3-0-3); II. Prerequisite: REAL 105 or consent of instructor. Theory and practices of real estate investments and the wide range of topics in this area. Reasons for and against investing, homes and business properties, sale and lease-backs, and the real estate investor.

REAL 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

REAL 345. Appraisal of Income Property. (3-0-3); II. Prerequisite: REAL 325. Introduction to current theory and practice of income property appraisal and appraisal techniques.

REAL 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various real estate topics will be presented periodically to supplement the basic course offerings in real estate. Credit toward degree programs must be approved by the student's advisor.

REAL 400. Real Estate Brokerage. (3-0-3); on demand. Prerequisite: REAL 105 or consent of instructor. An examination of the establishment and operation of a real estate broker's office; concentrating on the unique problems of staff recruitment and training, sales activities, marketing practices and policies, budget establishment, analysis and control, data handling, personnel policy, and professional ethics in such an agency.

REAL 410. Urban Land Use Analysis. (3-0-3); on demand. Prerequisite: REAL 105 and 325 or consent of instructor. Introduction to the responsibility of planning agencies to bring plans into closer harmony with the basic currents of economic development in the relationship between urban form and human behavior and activity patterns. Theory development, the use of models in planning, transportation systems, and other urban activities.

REAL 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representa-

tive of the student's academic level and experience analogous to a senior level course.

REAL 476. Special Problems in Real Estate. (1 to 3 hrs.); on demand. Prerequisites: senior standing and prior consent of head of department. Self-directed independent study on a specific problem, based on written proposal and justification submitted by student prior to registration. Each request will be considered on its own merit in relation to the special needs, interest, and abilities of the student.

REAL 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

REAL 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various real estate subjects will be presented periodically to supplement the basic course offerings in real estate. Credit toward degree programs must be approved by the student's advisor.

Reclamation Technology

RCL 301. Reclamation Laws and Regulations. (3-0-3); II. Prerequisite: MIN 101 or consent of the instructor. A study of federal and state regulatory agencies and regulations affecting the reclamation of disturbed land.

RCL 302. Reclamation Management and Systems Planning I. (2-4-4); I. Studies of current surface mining procedures and reclamation methods. Laboratory and field studies devoted to surface mining permit application procedures and site evaluation.

RCL 303. Reclamation Management and Systems Planning II. (2-4-4); on demand. Prerequisite: approval of instructor. An emphasis on evolving concepts in surface mining. Laboratory and field studies devoted to advanced site evaluation, environment testing procedures, and land use planning.

Recreation

REC 201. Outdoor Recreation. (3-0-3); II, III. Scope and history of outdoor recreation. Development of camp craft skills.

REC 209. Recreational Sports. (2-1-2); I, II, III. Prerequisite: Three of five activities. History, knowledge of rules, proficiency of skills, and teaching ability of bowling, archery, volleyball, soccer, and squash-handball. (Laboratory experiences are integral part of course.)

REC 285. Community Recreation. (2-0-2); I, II, III. Emphasizes general aspects of community recreation, place of school and other social institutions in recreation.

REC 286. Recreation Leadership. (2-0-2); I, II, III. History, theory, and philosophy of recreation. Practical techniques of leadership for low organization activities.

REC 288. Recreational Arts and Crafts. (1-2-2); I, II, III. Methods and materials, techniques of producing all types of crafts suitable for playground, community centers, hospital, school, camp, and club programs.

REC 290. Field Experience I. (1-1-1); I, II, III. Designed to give student practical experience under guidance of qualified leadership. (Laboratory experiences are integral part of course.)

REC 305. Social Recreation. (2-0-2); II. Practical application of planning, demonstrating, and conducting activities and programs for various social events and gatherings.

REC 310. Youth Organizations. (2-0-2); II. History, principles, and purposes of major youth service organizations with emphasis on leadership techniques and programming.

REC 375. Creative Dramatics. (3-0-3); II, III. Analysis and application of principles of creative dramatics as applied to classroom teaching recreation activities. (Same as THEA 375.)

REC 388. Community Centers and Playgrounds. (3-0-3); I, III. Leadership techniques, programming, and operation related

to planning and administration of community centers and playgrounds.

REC 471. Seminar. (1-0-1); I, II. Discussion and reporting of current issues and problems in recreation profession.

REC 475. Therapeutic Recreation. (3-0-3); II, III. Philosophy, objectives, and basic concepts of therapeutic recreation. Emphasis on rehabilitation needs within institutional and community settings.

REC 477. Recreation Internship. (4 to 8 hrs.). Planning, leadership, supervision, and program evaluation experience in community and recreation public agency program under qualified administrative leadership and University faculty supervision. (Laboratory experiences are integral part of course. Application made through Coordinator of Professional Laboratory Experiences.)

REC 490. Field Experience II. (1-1-1); I, II, III. Designed to give student practical experience under guidance of qualified leadership. (Laboratory experiences are integral part of course.) (Application made through Coordinator of Professional Laboratory Experiences.)

REC 522. Park Management and Resource and Operation. (3-0-3); I, II. Prerequisite: senior standing. Theory and current practices involved in effective management and operation of parks and recreation areas, with emphasis on management policies and procedures for efficient operation. Practical work with local, state, and federal park systems and personnel to apply theoretical knowledge in a practical situation.

REC 526. Fiscal Management in Parks and Recreation. (3-0-3); I, II. Prerequisite: senior standing. Things peculiar to recreation and park administration such as tax structures, budgets, budget preparation procedure, projecting financial aspects of recreation, and things necessary to handle properly the financial affairs in recreation and park field.

REC 528. Camping Administration. (3-0-3); I, II. Prerequisite: senior standing. Successful administration and organization of the camp.

REC 576. Special Problems in Recreation. (1 to 3 hrs.); I, II. Prerequisite: upper division or graduate classification. Designed to meet special needs of individual students. Intensive study of approved specific problems from area of recreation under direction of instructor.

REC 580. Outdoor Interpretation. (2-2-3); II, III. Procedures for conducting and supervising naturalist and outdoor interpretive programs.

REC 585. Programs and Materials for Therapeutic Recreation. (0-2-3); I, II. Prerequisite: senior standing. In-depth study of programs and materials used in therapeutic recreation. Considers various devices, activities, and materials used in programs for individuals. Practical work with individuals in therapeutic situations is stressed.

REC 599. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in recreation. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

Religion

NOTE: Credit in philosophy is not given for any of the courses in religion.

REL 221. World Religions I. (3-0-3). Prerequisite: PHIL 200—Introduction to Philosophy, is recommended. Origin, development, assumptions, values, beliefs, practices, great leaders, and principal events of Judaism, Christianity, Islam, and Zoroastrianism.

REL 222. World Religions II. (3-0-3). Prerequisite: PHIL 200—Introduction to Philosophy, is recommended. Origin, development, assumptions, values, beliefs, practices, great leaders, and principal events of Hinduism, Buddhism, Confucianism, Taoism, Jainism, Sikhism, and Shintoism.

REL 321. Early and Medieval Christian Thought. (3-0-3). Prerequisite: PHIL 200—Introduction to Philosophy, is recommended. Ideas concerning the nature of God, Jesus, the church, man, sin, salvation, the good life, and other issues presented by Jesus, Paul, John, and the early and medieval church fathers or leaders to the beginning of the Reformation.

REL 322. Modern Christian Thought (1500 to 1900). (3-0-3). Prerequisites: REL 321 and/or PHIL 200 recommended. Ideas concerning the nature of God, Jesus, the church, man, sin, salvation, the good life, and other issues presented by theologians and religious leaders from the beginning of the Reformation to the twentieth century.

REL 323. Twentieth-Century Christian Thought. (3-0-3). Prerequisite: REL 322 or PHIL 200 or consent of instructor. Ideas concerning the nature of God, Jesus, the church, man, sin, salvation, the good life, and other ideas presented by major twentieth-century theologians such as Barth, Bultmann, Tillich, Niebuhr, Wieman, Hartshorne, A.T. Robertson, Karl Rahner, Karl Adam, Thomas Altizer, and Dietrich Bonhoeffer.

REL 476. Special Problems. (1 to 3 hrs.). Prerequisite: 12 hours in religious studies or consent of the Department of Philosophy. The student selects an approved topic in religion on which to do a directed study.

Robotics

ROB 170. Fundamentals of Robotics. (3-0-3); II. An introduction to the operations and applications of robots. Android and industrial robots; emphasis on the history, development, sociological implications, and future trends. As survey class appropriate for any college major.

ROB 270. Robotics Systems Engineering. (2-2-3); I. Prerequisite: ROB 170. Systems engineering for variable sequence, playback, numerical control, and intelligent industrial robots. Economic justification, application, safety, maintenance, and programming. Laboratory activities will include problem-solving assignments with robots.

ROB 370. Robotics Interfacing Engineering. (2-2-3); II. Prerequisites: ROB 270 and EET 345. Electronic, digital, and mechanical interfacing of robots in industrial manufacturing cells. Topics will include open and closed loop feedback control systems, various sensing devices, tactile sensing, vision systems, and voice synthesis.

ROB 470. Robotics Applications Engineering. (0-6-3); I. Prerequisite: consent of instructor. Engineering design of a specific manufacturing problem and implementation in the laboratory. Emphasis on industrial engineering techniques, end-of-arm tooling, part orientation, and control devices for unmanned machine cells. An interdisciplinary approach will be used.

Russian

RUS 101. Beginning Russian I. (3-0-3). An introduction to Russian grammar beginning with the learning of the Cyrillic alphabet and progressing through a brief introduction of conjugation of verb forms and declension of adjectives and nouns.

RUS 102. Beginning Russian II. (3-0-3). Prerequisite: RUS 101 or one year of high school Russian. A continuation of RUS 101. An analysis of Russian grammar with emphasis on writing and speaking.

RUS 201. Intermediate Russian I. (3-0-3). Prerequisite: RUS 102. A continuation of Russian grammar with emphasis on vocabulary building and language structure. Russian lecture and elementary translation exercises are introduced in this course.

RUS 202. Intermediate Russian II. (3-0-3). Prerequisite: RUS 201. A continuation of RUS 201 with additional emphasis on Russian literature, translation, conversation, and writing.

RUS 301. Readings in Russian Literature. (3-0-3). *Prerequisite:* RUS 202. Directed study in Russian literature. The short story, poetry, prose, and essays. Review of Russian grammar as necessary. Oral practice.

RUS 302. Advanced Readings in Russian Literature. (3-0-3). *Prerequisite:* RUS 301. Readings in Russian from Lermontov, Turgenev, Tolstoy, Gogol, Dostoyevski, and others. Assigned readings on Russian culture and history. Review of Russian grammar as necessary.

Science

SCI 103. Introduction to Physical Sciences. (3-0-3); I, II, III. Measurements, energy, states of matter, nature and processes of physical sciences. An interdisciplinary approach to astronomy, chemistry, earth science, and physics.

SCI 107. Introduction to Geoscience. (3-0-3); I, II, III. A general survey of Earth; its astrogeological setting, its fluid portion, its solid part, its active processes, its history, the role of geology in preserving Earth's resources. See GEOS 107.

SCI 199. Selected Topics. (1 to 6 hrs.); on demand.

SCI 200. Descriptive Astronomy. (3-0-3); I, II, III. A non-mathematical presentation of methods and results of astronomical exploration of the solar system, our stellar system, and the galaxies.

SCI 299. Selected Topics. (1 to 6 hrs.); on demand.

SCI 360. Science of Aviation. (3-0-3); I. A study of airplane systems, meteorology, navigational procedures, the medical aspects pertinent to flying, and the development of aviation. With the completion of the course, the student should be able to perform successfully on the FFA examination, one of the requirements for the private pilot's license.

SCI 389. Honors Seminar in Sciences and Mathematics. (3-0-3); I, II. A study of current environmental problems and issues, and possible solutions to these problems. In future semesters the topics and times may vary.

SCI 399. Selected Topics. (1 to 6 hrs.); on demand.

SCI 471. Seminar. (1-0-1); I, II. *Prerequisite:* senior standing. An introduction to research and literature in the sciences and mathematics.

SCI 476. Special Problems. (1 to 6 hrs.); I, II, III. *Prerequisite:* consent of instructor. Topic to be approved prior to registration. Credit available in the sciences and mathematics.

SCI 490. Science for the Elementary Teacher. (2-2-3); I, II, III. *Prerequisite:* completion of the minimum general education requirements in sciences and mathematics. A study of teaching scientific concepts to elementary children.

SCI 499. Selected Topics. (1 to 6 hrs.); on demand.

SCI 570. Earth Science. (3-0-3); I, II, III. Selected topics from the geological sciences. (Especially designed for in-service and pre-service teachers.)

SCI 580. History of Science. (3-0-3); I, II, III. An interdisciplinary approach to the development of the scientific traditions, discoveries, and concepts from the time of ancient Egypt to the present. See BIOL 580.

SCI 591. Science for the Middle School Teacher. (2-2-3); on demand. Pedagogy, science content, and techniques applicable to the teaching of science to middle school and junior high children.

SCI 592. Science for the Secondary Teacher. (2-2-3); II. *Prerequisite:* permission of instructor. Concepts of teaching high school science with emphasis on laboratory techniques, test preparation, questioning, presentation methods, and care of equipment.

SCI 599. Selected Topics. (1 to 6 hrs.); on demand.

Social Work

SWK 210. Orientation to Social Welfare. (3-1-4); I, II. An introduction to the philosophy and early development of social welfare services, and exploration of the organization and function of social work practices in both the primary and secondary settings.

SWK 230. Social Work Values and Social Policy. (3-0-3); I, II. A study of values and policy formulation. Dominant values of the American society which influence social welfare policy will be compared with professional social work value commitment and social policy development and implementation.

SWK 310. Field Experiences in Social Work. (3-0-3); I, II. Observation and work experience in a social work agency under the supervision of a professional worker. Required for associate degree only.

SWK 315. Child Welfare Services. (3-0-3); I. Local, state, and national policies and programs designed to provide for the care, protection, and support of children.

SWK 322. Human Behavior in the Social Environment. (3-0-3); I, II. A study of the development of human behavior in the context of social systems. Special emphasis is placed on the development of physical and social functioning of the individual in the various stages of the life cycle.

SWK 325. Social Work Practice I. (3-0-3); I, II. The student will master at the beginning level the social work principles, practice methods, and processes essential to facilitating changes in various social systems.

SWK 330. Applied Medical Sociology. (3-0-3); II. (See SOC 330.)

SWK 399. Selected Topics. (1 to 3 hrs.); on demand. Unique topics and learning experiences that supplement regular course offering. May be repeated in additional subject areas.

SWK 425. Social Work Practice II. (3-0-3); I, II. This course is designed to enable the student to become a beginning practitioner who has integrated the knowledge and values of the profession as these apply to the interaction of persons and their social environment.

SWK 450. Research Methodology. (3-0-3); I, II, III. (See SOC 450.)

SWK 490. Senior Seminar. (1-0-1); I, II. A seminar providing an integrative capstone in preparation for entering the field of employment.

SWK 500. Special Problems. (1 to 3 hrs.); I, II, III. *Prerequisite:* Consent of instructor and social work coordinator. Arranged with department to study a particular topic in the social work field.

SWK 510. Practicum in Social Work. (4 to 8 hrs.); I, II. Actual work experience in the various agencies of social welfare under supervision of a trained and certified professional worker.

SWK 515. Correctional Counseling. (3-0-3); II. (See COR 515.)

SWK 520. Social Work Administration and Management. (3-0-3); on demand. The history, nature, organizational structure, and philosophy of the administration of public programs of income maintenance and other welfare services; consideration of the role of voluntary agencies.

SWK 525. Social Work Practice III. (3-0-3); I, II. The student will master advanced social work practice methods as they are applied to social systems and special populations.

SWK 530. Social Policy and Planning. (3-0-3); I, II. An analytical study of social welfare policy formulation, funding, and delivery systems and planning processes.

SWK 535. Group Dynamics. (3-0-3); I. This course is designed to give the student an understanding of group methods and the theories underlying the use of groups in the helping process. Special emphasis will be given to the processes that affect the development and functioning of all types of groups.

SWK 540. Gerontology. (3-0-3); II. (See SOC 540.)

SWK 545. Death and Dying. (3-0-3); I. (See SOC 545.)

Sociology

SOC 101. General Sociology. (3-0-3); I, II, III. The nature and dynamics of human society. Basic concepts include: culture, groups, personality, social institutions, social processes, and major social forces.

SOC 170. Rural Sociology. (3-0-3); I. The cultural and social organizations of rural and urban societies with emphasis on the impact of economic changes and population movements.

SOC 201. Sociology of Corrections. (3-0-3); I, II. (See COR 201.)

SOC 203. Contemporary Social Problems. (3-0-3); I, II, III. A systematic and objective interpretation of contemporary social problems such as crime, delinquency, poverty, race relations, family problems, problems with emphasis on societal conditions under which deviance emerges, and the alleviation of such deviant behavior.

SOC 205. The Family. (3-0-3); I. The family in cross-cultural and historical perspective; as a social institution; the impact of economic and social conditions on family values, structure, functions, and roles.

SOC 302. Population Dynamics. (3-0-3); II. The U.S. population; social and economic characteristics; migration, mortality, and fertility trends; influence of social factors on population processes; basic techniques of population analysis; survey of population theories; data on international migration.

SOC 304. Social Change. (3-0-3); on demand. Change theories from early to contemporary scholars. Antecedents and effects of change; function, structure, and ramifications of change; normality of change in modernization, social evolution contrasted with social revolution.

SOC 305. Cultural Anthropology. (3-0-3); I, II. A study of literate and nonliterate cultures using the ethnographic approach. Universal aspects of human experience, including the family, economic, political and religious systems examined in cross-cultural perspective.

SOC 306. Juvenile Delinquency. (3-0-3); I, II. The extent, ecological distribution, and theories of delinquency in contemporary American society, including a critical examination of trends and methods of treatment of delinquency.

SOC 310. The Sociology of Deviance. (3-0-3); I. Designed to introduce the student to the sociological perspective with respect to the definition, causes, and social consequences of deviance.

SOC 312. Sociology of Sports. (3-0-3); on demand. The role of sports and games in the shaping and maintaining of values in the American culture. An examination of sport as expressed in aggression displacement, human welfare, patriotism, religion, group cohesion, sex, competition, and leisure.

SOC 323. Urban Sociology. (3-0-3); on demand. The rise of modern cities; theoretical explanations of urbanization; and the analysis of modern urban problems.

SOC 330. Applied Medical Sociology. (3-0-3); II. An examination of social, cultural, and psychological factors which influence health behaviors; an overview of health care delivery systems and policies; and an analysis of the role of social workers and other health professionals.

SOC 354. The Individual and Society. (3-0-3); I, II, III. The influence of group processes on individual behavior. Topics covered include personality formation and change; small group behavior and leadership patterns.

SOC 374. American Minority Relations. (3-0-3); I, II. Examines various processes of social and cultural contact between peoples; theories dealing with the sources of prejudice and discrimination; basic processes of intergroup relations; the reactions of minorities to their disadvantaged status; and means by which prejudice and discrimination may be combated.

SOC 375. The Teaching of Social Studies. (3-0-3); I. (See HIS 375.) (Does not count in the major or minor.)

SOC 376. Industrial Sociology. (3-0-3); on demand. Modern industrialization as social behavior. Social conditions in the rise of industrialism and effects on the worker; collective bargaining and industrial conflict; the industrial community social classes and the industrial order.

SOC 399. Selected Topics. (1 to 3 hrs.); on demand. Unique topics and learning experiences that supplement regular course offering. May be repeated in additional subject areas.

SOC 401. Criminology. (3-0-3); on demand. Cause, treatment, and prevention of crime.

SOC 405. Sociological Theory. (3-0-3); I, II, III. An introduction to basic theoretical approaches to the study of society and a survey of contributions to the field by major theorists.

SOC 420. Seminar in Criminal Behavior. (3-0-3); II. (See COR 420.)

SOC 450. Research Methodology. (3-0-3); I, II, III. Fundamental assumptions underlying sociological research; some practical experience in research design, data collection, techniques, and data analysis.

SOC 476. Special Problems. (1 to 3 hrs); I, II, III. *Prerequisite:* Consent of instructor and department chair. Arranged with the department to study some particular aspect of the field of sociology.

SOC 510. Principles of Sociology. (3-0-3); on demand. This course is designed to give sociology majors an integrated perspective of the discipline and to provide an advanced introduction to graduate students entering sociology from related disciplines.

SOC 515. Family Dynamics. (3-0-3); II. An intensive analysis of the family in its social context. Emphases are placed upon social interaction within the family, socio-cultural and socio-economic factors which bear influence upon it, and the relationship of the family to the total social system.

SOC 525. The Community. (3-0-3); I. The general character of community relations in society, the structure and function of the community as a social system, the processes of balancing community needs and resources, and planned and unplanned social change.

SOC 540. Gerontology. (3-0-3); II. An analysis of aging designed to provide the student with a knowledge of the special factors involved in the aging process as well as the social work techniques designed to aid such individuals to cope with the changes inherent in the aging process.

SOC 545. Death and Dying. (3-0-3); I. The analysis of death and dying as social processes and problems; strategies for working with dying persons.

Spanish

SPA 101. Beginning Spanish I. (3-0-3). Emphasis on development of comprehension of written and spoken Spanish; oral and aural drills supplemented by practice with tape program. Essentials of grammar.

SPA 102. Beginning Spanish II. (3-0-3). *Prerequisite:* SPA 101 or permission of the instructor. A continuation of SPA 101.

SPA 201. Intermediate Spanish I. (3-0-3). *Prerequisite:* SPA 102 or permission of the instructor. Reading of moderately difficult Spanish texts; thorough review of minimum essentials of Spanish grammar; conversational practice.

SPA 202. Intermediate Spanish II. (3-0-3). *Prerequisite:* SPA 201 or permission of the instructor. A continuation of SPA 201. Reading of more difficult texts.

SPA 300. Grammar and Composition. (3-0-3). *Prerequisite:* SPA 202 or permission of the instructor. Review of difficult concepts of Spanish grammar. Study and analysis of writing styles. Emphasis on written composition.

SPA 301. Survey of Peninsular Spanish Literature from 1700. (3-0-3). *Prerequisite:* SPA 300. A survey of Spanish peninsular literature from 1700 to the present with readings from the most significant works in each literary period. Lectures, oral discussions, reports.

SPA 302. Survey of Spanish American Literature from Colonial Times to 1880. (3-0-3) *Prerequisite:* SPA 300. A survey of Spanish American literature from colonial times to 1880 with readings from the most significant works in each literary period. Lectures, oral discussions, reports.

SPA 303. Spanish for Business and Commerce. (3-0-3). *Prerequisite:* SPA 300. An introduction to cultural aspects of prob-

lems related to the conduct of international business in the Hispanic world.

SPA 305. Conversation. (3-0-3). Prerequisite: SPA 202. Conversation on daily subjects of current interest pertaining to the Hispanic world; acquisition of new vocabulary through reading of current material and usage in oral work.

SPA 401. Masterpieces of Spanish Literature. (3-0-3). Prerequisite: SPA 300. Reading, analysis, and discussion of literary masterpieces in Spanish. Emphasis on the Middle Ages and the Golden Age.

SPA 402. Masterpieces of Spanish American Literature. (3-0-3). Prerequisite: SPA 300. Reading, analysis, and discussion of literary masterpieces in Spanish. Emphasis on modernism and contemporary literature.

SPA 405. Linguistics and Language Teaching. (3-0-3). Prerequisite: SPA 300. The application of linguistics to the methodology of teaching Spanish.

SPA 420. Hispanic Culture and Civilization. (3-0-3). Prerequisite: SPA 300. Study of the history, art, culture, and everyday life of the Hispanic world.

SPA 502. Spanish Stylistics. (3-0-3). Prerequisites: SPA 300 and at least 3 hours from other SPA 300- or 400-level courses. Reading and analysis of different writing styles. Study of Spanish rhetorical devices. Translations and compositions in Spanish.

SPA 523. Don Quixote de la Mancha. (3-0-3). Prerequisites: SPA 300 and at least 3 hours from other SPA 300- or 400-level courses. A study of this masterpiece of Spanish literature.

SPA 532. Contemporary Spanish and Spanish American Literature. (3-0-3). Prerequisites: SPA 300 and at least 3 hours from other SPA 300- or 400-level courses. A survey of significant characteristics of twentieth century Hispanic literature, including the novel, the short story, the drama, the essay, and poetry.

SPA 540. Seminar in Hispanic Literature. (3-0-3). Prerequisites: SPA 300 and at least 3 hours from other SPA 300- or 400-level courses. Group instruction and practice in research methods peculiar to Hispanic literature.

SPA 555. Lope de Vega. (3-0-3). Prerequisites: SPA 300 and at least 3 hours from other SPA 300- or 400-level courses. A study of the major dramatic and non-dramatic works of Lope de Vega.

Speech

SPCH 100. Voice and Articulation. (3-0-3); I, II. Essentials of distinct utterance, phonetic transcription, and uses of the vocal mechanism.

SPCH 101. Voice Production I. (1 to 3 hrs.); upon demand. Competency-based individual voice production experiences and study with goals of increasing proficiency of student vocal production.

SPCH 102. Voice Production II. (1 to 3 hrs.); upon demand. Continued competency-based individual voice production experiences and study with goals of increasing proficiency of student vocal production.

SPCH 110. Basic Speech. (3-0-3); I, II, III. Development of proficiency in the use of oral language presentations.

SPCH 200. Oral Interpretation. (3-0-3); I. Communicating the meanings of prose, poetry, and dramatic literature through the use of body, voice, thought, and emotion.

SPCH 210. Listening. (3-0-3); I, II. The study and practice of skills in both retentive and empathic listening.

SPCH 220. Introduction to Communication Theory. (3-0-3); II (alternate years). A survey of communication theory with emphasis on the interpersonal aspects.

SPCH 300. Oral Communications. (3-0-3); on demand. Prerequisite: SPCH 110. Development of appropriate classroom voice through study, exercise, practice in reading, describing, and motivating. Designed for elementary teaching majors.

SPCH 301. Advanced Voice and Articulation. (3-0-3); I (alternate years). Prerequisite: SPCH 100. Advanced training in voice production for the purpose of developing professional proficiency and flexibility beyond the scope of the prerequisite first course. Students may be assessed a fee for materials distributed in class.

SPCH 305. Readers Theatre. (3-0-3); II (alternate years). Prerequisite: SPCH 200 or permission of the instructor. Applying the theories of oral interpretation to an audience-oriented production.

SPCH 310. Interpersonal Communication. (3-0-3); II. Conceptual elements and dynamics of informal person-to-person communication in both theory and practice.

SPCH 315. Verbal Survival. (3-0-3); on demand. The process of communication "action-reaction." Specific skills for recognition and defense from forms of daily manipulative communication.

SPCH 318. Nonverbal Communication. (3-0-3); II (alternate years). Components of nonverbal communication.

SPCH 320. Introduction to Corrective Speech. (3-0-3); I, II. Speech Correction for the classroom teacher. Same as EDSP 320.

SPCH 342. Instructional Communication. (3-0-3); on demand. Study and practice of the oral communication skills required for effective secondary school teaching.

SPCH 370. Business and Professional Speech. (3-0-3); I, II, III. Study and practice in techniques of committee work, interview, and other speech forms required in business and the professions.

SPCH 380. Debate Practicum. (0-2-1); on demand. Prerequisite: consent of the instructor. Activity and research for students involved in intercollegiate debate. May be repeated for a total of 6 hours credit.

SPCH 382. Argumentation and Debate. (3-0-3); II (alternate years). Making rational decisions through the debate process. Analysis, evidence, briefing, and refutation.

SPCH 383. Group Discussion. (3-0-3); I (alternate years). Analysis of the roles of participants and leaders in problem solving with experience in conducting formal and informal groups.

SPCH 385. Persuasion. (3-0-3); II (alternate years). Nature and methods of persuasion for influencing group opinion and action. Recommended for business majors.

SPCH 388. Speech Practicum. (1-2-2); I, II. Prerequisite: approval of the instructor. Independent guided study in specific areas of speech through participation in the Intercollegiate Individual Events program. May be repeated up to a maximum of 6 hours credit.

SPCH 470. Interviewing for Employment. (1-0-1); II. Theory and practice of preparing for and responding to employment interviewing.

SPCH 471. Speech-Dramatic Arts Seminar. (1-0-1); on demand. Resources and research techniques in speech and dramatic arts.

SPCH 510. Advanced Public Speaking. (3-0-3); on demand. Preparation and delivery of longer and more complex speeches.

SPCH 521. Classical Rhetorical Theory. (3-0-3); on demand. In-depth study of the rhetorical theory of Plato, Aristotle, Cicero, and other writers of the Greek and Roman periods.

SPCH 522. Contemporary Rhetorical Theory. (3-0-3); on demand. Prerequisite: SPCH 521 or permission of the instructor. Development of rhetorical and communication theory from the Renaissance to the present.

SPCH 523. Rhetorical Criticism. (3-0-3); on demand. Application of classical and modern rhetorical theory; analysis and criticism of selected speeches.

SPCH 527. American Public Address. (3-0-3); on demand. Major speeches, speakers, and movements in America from the Colonial Period to the New Deal.

SPCH 530. Contemporary Public Address. (3-0-3); on demand. Major speeches, speakers, and movements from the 1930s to the present.

SPCH 567. Organizational Communication. (3-0-3); I. A study of the dynamic function of communication which occurs within various organizational structures and related professional environments.

SPCH 570. Parliamentary Procedure. (3-0-3); II (alternate years). Theory and application of procedures used by profit and non-profit organizations.

SPCH 571. Interviewing. (3-0-3); II (alternate years). A detailed study of the various business interview types, coupled with role-playing experiences.

SPCH 583. Small Group Communication. (3-0-3); on demand. *Prerequisite:* SPCH 383 or permission of instructor. Current theory and related concepts regarding the discussion process.

SPCH 595. Administering the Communications Program. (3-0-3); I (alternate years). Development and management of communications programs, including co-curricular activities. (Lab fees will be assessed for each student.)

SPCH 597. Administering and Supervising the Co-Curricular Communication Arts Program. (3-0-3); on demand. *Prerequisite:* SPCH 110. Nature, objectives, and values of a forensics program. Traditional high school forensic events with a laboratory experience in each.

Theatre

THEA 100. Fundamentals of the Theatre. (2-2-3); I, II. An introduction to the theatre as an art form, its historic and organizational structure. For theatre majors and minors.

THEA 110. Introduction to the Theatre. (3-0-3); I, II. Acting, set design, costume design, theatre architecture, lighting, playwriting, and make-up. For non-theatre majors and minors.

THEA 130. Summer Theatre I. (4-0-4); III. May be repeated. *Prerequisite:* acceptance to summer theatre or by permission. Practical experience in production with work in laboratory environment. A limit of four hours may be credited toward a degree program. Credit hours earned which exceed the limit may be applied to the minimum requirements for the A.B. degree.

THEA 200. Introduction to Dramatic Literature. (3-0-3); I, II. Representative dramatic literature from Greek antiquity to the present.

THEA 208. Beginning Ballet. (1-4-3); I. A study and application of basic ballet techniques.

THEA 210. Technical Production. (1-4-3); II. A study of the technical elements in theatrical production; set construction, lighting, and sound.

THEA 284. Acting Techniques. (3-0-3); I. A study of acting from both the aesthetic and the practical viewpoints; exercises in pantomime and vocal techniques.

THEA 300. Elements of Play Production. (3-0-3); I. Problems of play production; choice of script, casting production and backstage organization, and directing.

THEA 308. Intermediate Ballet. (1-4-3); II. *Prerequisite:* THEA 208 or permission of instructor. A further study of ballet techniques and profiles of famous dancers.

THEA 309. Tap Dancing. (1-4-3); I. A study and application of tap dance techniques.

THEA 310. Stage Movement. (2-0-2); on demand. The study and practice of stage fighting and movement in various historical periods.

THEA 311. Theatre Practicum I. (1 to 3 hrs.); on demand. May be repeated. *Prerequisite:* THEA 100 or approval of instructor. To provide independent guided study for the development of specialization in specific areas of the theatre.

THEA 312. Theatre Practicum II. (1 to 3 hrs.); on demand. May be repeated. *Prerequisite:* THEA 311. A continuation of Theatre 311.

THEA 313. Theatre Practicum III. (1 to 3 hrs.); on demand. May be repeated. *Prerequisite:* THEA 312. A continuation of Theatre 312.

THEA 315. Stage Make-up. (2-2-3); on demand. Study and application of make-up and techniques for the stage.

THEA 316. Stage Properties. (2-2-3); on demand. The study and practice of stage properties, their construction, acquiring, and repair; the study of furniture history.

THEA 317. Scene Painting. (2-2-3); on demand. The study and practice of paints and painting techniques as they apply to the scenic artist.

THEA 320. Sceneographic and Drawing Techniques. (2-2-3); I. *Prerequisite:* THEA 210 or consent of instructor. The study and practice of basic drawing techniques which uniquely apply to theatrical design and mechanical working drawing for stage scenery.

THEA 321. Stage Lighting. (2-2-3); on demand. *Prerequisite:* THEA 210 and 320. The mechanical and artistic approach to stage lighting; study of electrical theory and instrument utilization.

THEA 322. Scene Design. (2-2-3); II. *Prerequisite:* THEA 210 and 320. The study of design theories with the creation and development of scene design projects and rendering techniques.

THEA 325. Stage Costume and History I. (1-4-3); on demand. Creation of costume design with emphasis on the principles of design and rendering techniques related to historic design.

THEA 326. Stage Costume and History II. (1-4-3); on demand. Creation of costume design with emphasis on the principles of design and rendering techniques related to historic design.

THEA 327. Creative Sewing for the Theatre I. (1-4-3); on demand. A course in creating original patterns for stage costumes and construction techniques.

THEA 328. Creative Sewing for the Theatre II. (1-4-3); on demand. An advanced course in creating original patterns for stage costumes.

THEA 330. Summer Theatre II. (4-0-4); III. *Prerequisite:* THEA 130 and acceptance to summer theatre company. Crew assignments in areas other than those completed in THEA 130. May be repeated. A limit of four hours may be credited towards a degree program. Credit hours earned which exceed the limit may be applied to the minimum requirements for the A.B. degree.

THEA 354. Theatre History. (3-0-3); I. A study of the origins and development of theatre.

THEA 375. Creative Dramatics. (3-0-3); I, II. An analysis and application of principles of creative dramatics as applied to classroom curricular activities.

THEA 380. Play Directing. (3-0-3); II. *Prerequisite:* THEA 100 and 210 or permission of instructor. Theories and principles of directing; director's interpretation; casting; planning action and making the prompt-book.

THEA 408. Advanced Ballet. (1-4-3); on demand. *Prerequisite:* THEA 308 or permission of the instructor. Advanced study of ballet techniques and profiles of historic dances.

THEA 512. Playwriting. (3-0-3); on demand. *Prerequisite:* THEA 200 and 100, or by permission of instructor. An analysis of the structure of plays and the writing of original scripts.

THEA 513. Advanced Play Direction. (3-0-3); on demand. *Prerequisite:* THEA 380. To develop greater proficiency in techniques of directing as related to specific productions and staging problems.

THEA 530. Summer Theatre III. (4-0-4); may be repeated. *Prerequisites:* THEA 300 and acceptance to summer theatre company. Advanced assignments in set and costume design or advanced acting and directing.

THEA 552. Early Dramatic Literature. (3-0-3). A detailed study of representative plays from the Greeks to mid-nineteenth century.

THEA 553. Modern Dramatic Literature. (3-0-3); II. A detailed study of the drama from the growth of realism to the present day.

THEA 555. Dramatic Criticism. (3-0-3); on demand. *Prerequisite:* THEA 200, 100, and 554, or by permission of instructor. Dramatic theory and criticism as developed through Aristotle, Horace, the middle ages, the Renaissance, and the twentieth century.

THEA 562. Advanced Acting. (3-0-3); II. Prerequisite: THEA 284. Advanced study of acting, including analysis and development of characters in acting situations.

THEA 563. Advanced Costuming. (2-2-3); I. Prerequisite: THEA 326 or permission of instructor. Designing costumes for theatrical production, making patterns, and the fabrication of garments for the stage.

THEA 564. Advanced Scene Design. (2-2-3); II. Prerequisite: THEA 210, 320, and 322 or permission of instructor. To develop greater proficiency in the skills of scenic design as applied to specific problems and theatrical productions.

THEA 565. Advanced Stage Lighting. (2-2-3); II. Prerequisite: THEA 210, 320, and 322 or permission of instructor. To develop proficiency in the skills of lighting specific productions; to research topics and special problems pertaining to stage lighting.

THEA 570. Children's Theatre. (3-0-3); II. Prerequisite: THEA 100. A concentrated study of the problems involved in organization and production of plays for and with children.

Veterinary Technology

VET 102. Introduction to Veterinary Technology. (2-3-3); I. Prerequisite: Program acceptance. Introduction to Veterinary Technology and its relationship to Veterinary Medicine, including professional ethics, jurisprudence and medical terminology. The laboratory emphasizes performance of basic clinical tasks, including client education, physical exams, restraint and animal care.

VET 105. Anatomy of Domestic Animals. (2-2-3); I. Prerequisite: Program acceptance. A study of the anatomical structures of the animal body, including normal and abnormal cell and tissue types, organs and organ systems of small, large and laboratory animals. The cat will be used for dissection.

VET 106. Animal Science and Breeds Identification. (2-2-3); I. Prerequisite: Program acceptance. A study of large and small animal science related to the practice of Veterinary Medicine including breeds identification and recognition, practical feeding, breeding, genetics, conformation and animal sheltering. 60 small animal-40 large animal.

VET 107. Laboratory Techniques I. (2-2-3); I. Prerequisite: Program acceptance. A study of the principles and practices of clinical pathology, designed to develop manual dexterity and clinical accuracy in collecting and processing pathological specimens. Includes comparative hematology, heartworm and fecal exams, with emphasis on theory of tests utilized in the veterinary laboratory.

VET 206. Physiology of Domestic Animals. (2-2-3); II. Prerequisite: VET 105. A study of the basic normal and abnormal life processes and functions of the animal body with emphasis on the body systems. Practical laboratory application of lecture theory will be included.

VET 208. Laboratory Techniques II. (2-3-3); II. Prerequisite: VET 107. A continuation of the study of clinical pathology; including theory and skill development of blood chemistries, serological tests, urinalysis, cytology, and semen evaluation necessary to provide accurate laboratory results for the practicing veterinarian. Collection and shipment of laboratory specimens to reference laboratories is emphasized.

VET 210. Parasitology and Entomology. (2-0-2); III. Prerequisite: VET 107. A study of common internal, external and blood parasites of domestic animals including etiology, life cycles, clinical manifestation, diagnosis, treatment and control. Public health concerns of animal parasites are included.

VET 215. Clinical Practices I. (1-3-2); II. Prerequisite: VET 102. A study of the essential clinical tasks related to handling, care and treatment of small and laboratory animals. Surgical nursing and surgery room procedures will be emphasized.

VET 220. Clinic Rotation I. (0-6-1); II. Prerequisite: VET 102 and 107. This course provides 90 hours of supervised Clinical experience in veterinary clinical pathology, office management, and surgical assisting.

VET 221. Clinic Rotation II. (0-3-1); III. Prerequisite: VET 220. This course provides 48 hours of supervised clinical experience in pharmacy management, anesthesia administration, and surgical assisting.

VET 222. Clinic Rotation III. (0-6-1); I. Prerequisite: VET 221. This course provides 90 hours of supervised clinical experience in large animal surgical assisting, herd preventive medicine and regulatory control procedures.

VET 308. Laboratory Techniques III. (2-2-3); III. Prerequisite: VET 208. A study of the clinical application of microbiology in veterinary medicine focusing on bacteriology and mycology with an introduction to virology, including collecting, culturing, identifying and sensitivity testing of veterinary medical specimens.

VET 315. Clinical Practices II. (1-3-2); I. Prerequisite: VET 215. A study of the restraint, treatment, and surgical procedures in large animal medicine, including regulatory requirements, mastitis control, meat inspection and necropsy.

VET 333. Small Animal Diseases and Nutrition. (2-0-2); II. A study of canine and feline disease processes with emphasis on zoonosis, client education, and nutrition of diseased animals.

VET 339. Pharmacology for the Veterinary Technician. (2-2-3); III. Prerequisite: VET 206. A study of the nomenclature and classification of therapeutic, anesthetic and nutritional agents used in current veterinary medicine. Pharmacy maintenance, dispensing and dosage calculations will be emphasized. The laboratory will include administration of anesthesia to large and small animals.

VET 340. Radiology. (2-3-3); I. Prerequisite: VET 105. A study of the radiographic principles of veterinary medicine, including operation of the X-Ray machine, positioning of the patient, film identification, film processing and safety procedures necessary to produce radiographs of diagnostic value.

VET 346. Large Animal Diseases and Nutrition. (3-0-3); I. Prerequisite: VET 206 and 308. A study of the disease processes of the equine, bovine, porcine, ovine and caprine species, with emphasis on client communication pertaining to zoonosis, control, and nutritional support of diseased animals.

VET 350. Laboratory Animal Medicine. (2-0-2); III. Prerequisite: VET 206 and 215. A study of laboratory animal medicine and care including restraint, housing, breeding, common diseases and nutrition of rabbits, rats, mice, guinea pigs, hamsters, primates and avian species to prepare the student for the American Association for Laboratory Animal Science (AALAS) provisional Certification Examination.

VET 360. Preceptorship. (0-40-12-); II. Prerequisite: Satisfactory completion of all other Vet. Tech. Associate degree requirements. The preceptorship consists of 14 weeks (600 hours) of supervised work experience with selected graduate licensed veterinarians. Weekly written reports by the student, supervisor evaluation reports and visitation by the program coordinator to monitor the student's progress. A two week seminar at the completion of the supervised work experience is conducted upon return to MSU campus.

VET 440. Veterinary Anesthesiology. (2-4-4); II. Prerequisite: VET 339. Advanced study of the skills of administration of anesthesia to small, large, and laboratory animals.

VET 450. Veterinary Clinical Pathology. (2-3-3); I. Prerequisite: VET 107, VET 208, VET 308. An advanced course in veterinary clinical pathological technique.

VET 470. Veterinary Hospital Management. (2-4-4); I. Prerequisite: VET 460. A course designed to include all areas of veterinary hospital management.

VET 490. Seminar. (1-0-1); I. Prerequisites: VET 440, VET 450. A study of the current trends in veterinary medicine and jurisprudence.

Welding Technology

WEL 101. Oxyacetylene Welding. (3-0-3); I. Instruction on equipment, material, and supplies needed for oxyacetylene welding, including chemistry of gases, torches, regulators, and required techniques needed for ferrous and nonferrous materials.

WEL 101A. Oxyacetylene Welding Laboratory. (0-9-3); I. Application of theory, including preparation of equipment and welding of different materials in both in-position and out-of-position joints.

WEL 102. Arc Welding. (3-0-3); II. Principles of stick electrode welding, including power supplies, polarities, type electrodes, and techniques required for ferrous and nonferrous materials.

WEL 102A. Arc Welding Laboratory. (0-9-3); II. Application of theory, including weld joint design and fabrication techniques in the development of several required weld joint coupons and other media.

WEL 201. Inert Gas Welding. (3-0-3); I. Basic theory of inert gas consumable and nonconsumable welding techniques, including necessary equipment, power supplies, and inert gas.

WEL 201A. Inert Gas Welding Laboratory. (0-9-3); I. Application of theory through development of welds requiring machine set-up for proper techniques and required adjustments. Students will prepare joints on several types of metals using proper techniques.

WEL 202. Weld Joint Design and Testing. (3-0-3); II. Basic static and dynamic calculation for development of standard butt, fillet, T-joints, and others commonly used in industrial fabrication and manufacturing product design.

WEL 204. Welding Codes and Blueprint Reading. (3-0-3); II. Study of A.W.S. standard welding symbols and A.S.T.M. codes normally used in weld design engineering. Common engineering graphic techniques associated with weld joint design and structural engineering.

WEL 205. Welding Metallurgy. (3-0-3); I. Physical and chemical metallurgical characteristics commonly associated with phase changes during and after fusion techniques of ferrous and nonferrous metals.

WEL 307. Automated Welding Technology. (0-6-3); II. Metal inert gas welding techniques adapted to robots and other automated welding systems. Suitable for both welding technology students and other students involved with the robotics engineering technology option.

WEL 386. Welding I. (2-2-3); I,II. Pressure, non-pressure, and brazing processes for material fabrication. Arc, oxyacetylene, inert gas, and special welding techniques. Coupon analysis required for destructive and nondestructive testing.

Administrative Directory

Board of Regents

J. Calvin Aker, Frankfort
Edward T. Breathitt, Lexington
Walter W. Carr, Morehead
Barbara Curry, Lexington
Allan M. Lansing, Louisville
Louie B. Nunn, Lexington
William R. Seaton, Ashland
Charles D. Wheeler, Ashland
Alban L. Wheeler, Faculty
Gregory D. Ramey, Student

Officers of the Board

Louie B. Nunn, Chairperson
Edward T. Breathitt, Vice Chairperson
W. Porter Dailey, Treasurer
Carol Johnson, Secretary

Office of the President

C. Nelson Grote, President
Carol Johnson, Administrative Assistant

Academic Affairs

Vice President for Academic Affairs
James Gotsick, Dean of Graduate and Academic Programs
Patty Watts, Coordinator of Graduate Programs
John Kleber, Director of Honors Program
Larry Besant, Director of Libraries
Stephen Taylor, Executive Director of Academic Affairs Support Services
Gene Ranvier, Registrar
Associate Director of Admissions
George W. Eyster, Director of Extended Campus
Carole Morella, Director of Research, Grants and Contracts
George Troutt, Coordinator of In-Service Education
Betty Moran, Director of Academic Services Center

Applied Sciences and Technology, College of

Charles Derrickson, Dean
Judy Willard, Chair, Department of Agriculture and Natural Resources
Chair, Department of Home Economics (to be named)
Robert Newton, Chair, Department of Industrial Education and Technology
Betty M. Porter, Chair, Department of Nursing and Allied Health

Arts and Sciences, College of

John Philley, Dean
Thomas Sternal, Chair, Department of Art
Gerald DeMoss, Chair, Department of Biological and Environmental Sciences
Richard Dandeneau, Chair, Department of Communications
Ronald Dobler, Chair, Department of English, Foreign Languages, and Philosophy
Broadus Jackson, Chair, Department of Geography, Government, and History
Glenn Johnston, Chair, Department of Mathematics
Christopher Gallaher, Chair, Department of Music
William R. Falls, Chair, Department of Physical Sciences

Professional Studies, College of

Larry W. Jones, Dean
William Whitaker III, Chair, Department of Business and Economics
Paul McGhee, Chair, Department of Education
Earl Bentley, Chair, Department of Health, Physical Education, and Recreation
Alan Baldwin, Chair, Department of Military Science
George Tapp, Chair, Department of Psychology
David Rudy, Chair, Department of Sociology, Social Work, and Corrections

Administrative and Fiscal Services

Porter Dailey, Vice President for Administrative and Fiscal Services
Joe Planck, Director of Physical Plant
Director of Food Services (to be named)
Michael R. Walters, Executive Director for Fiscal Services
Ray Pinner, Controller
Jack G. Jones, Director of Personnel Services
William Rosenberg, Director of Communication Services
Gary Messer, Director of Safety and Security
Norma F. Northern, Director of Budgets, Management, and Information Services
Ron Jones, Property Accounting Officer
Janet Allen, Purchasing Officer
Larry Netherton, General Manager of WMKY
K. Martin Huffman, Manager of Printing Services
John Collis, Manager of University Store
Jim Wells, Manager of University Golf Course
Bill Mahaney, Acting Director of Computing Services
Virginia Caudill, Payroll Officer
Allen Hicks, Postmaster

Athletics

G.E. Moran Jr., Director of Athletics
David R. Brunk, Assistant Director of Athletics

Student Development

D. Michael Mincey, Vice President for Student Development and Coordinator of Greek Affairs
Jeanie Stidom, Administrative Assistant to the Vice President for Student Development
Larry Stephenson, Director of University Center/Student Activities
Clyde James, Manager of University Center Services
Coordinator of Greek Affairs and Student Organizations
Susette Redwine, Coordinator of University Center Programs and Special Services
Robert M. (Mickey) Wells, Director of Intramurals and Recreation
Gary Silker, Director of University Counseling Center
Perry LeRoy, International Student Advisor
Dan Anderson, Clinical Psychologist
Anna Mae Riggle, Counselor for Non-Traditional Students
Jerry Gore, Director of Minority Student Affairs
Jane Blair, Director of Student Health Services
Tim Rhodes, Director of University Enrollment Services and Financial Aid
Ellen Carscaddon, Associate Director of Financial Aid
Madonna Huffman, Director of Residence Education
Jim Morton, Associate Director of Financial Aid
Kenny White, Associate Director of Student Housing
Michael Hopper, Director of Career Planning and Placement
Charles Myers, Associate Director of Admissions

University Relations

Keith Kappes, Director of University Relations
Judith O. Yancey, Director of Public Information
William H. Redwine, Director of Alumni Relations
Randy L. Stacy, Director of Eagle Athletic Fund
James R. Bradley, Staff Photographer
Mary C. Bragg, Publications Editor
Pauline H. Young, Staff Writer
Cindy Gray, Graphic Designer
Tami Blong, Assistant Director of Alumni Relations
Jan Burge, Coordinator of Conference Services

The date in parentheses after the name is that of first appointment to a position on the faculty of this university.

College of Applied Sciences and Technology

Department of Agriculture and Natural Resources

Donald Lyn Applegate, associate professor (1984), D.V.M., Auburn University
Joe F. Bendixen, professor (1971), Ph.D., Iowa State University
Gene D. Carswell, instructor (1978), B.S., Middle Tennessee State University
Charles M. Derrickson, professor (1965), Ph.D., Michigan State University
Barbara Krakoff, instructor (1981), B.A., A.H.T., State University College of New York at Buffalo
James C. Martin, associate professor (1975), Ph.D., University of Missouri
Tamara A. McMillan, instructor (1979), B.S., William Woods College
W. Charles Patrick, assistant professor (1985), M.S., West Virginia University
Charles Brent Rogers, assistant professor, Ph.D., University of Arkansas
Scott W. Rundell, assistant professor (1984), D.V.M., Michigan State University
Vivian Smith, instructor (1984), B.S., Morehead State University
Judith G. Willard, associate professor (1977), Ph.D., University of Kentucky
Robert H. Wolfe, associate professor (1967), M.S., Virginia Polytechnic Institute and State University

Department of Home Economics

Jane C. Ellington, assistant professor (1981), M.S., University of Kentucky
Carolyn Flatt, instructor (1971), M.A., Morehead State University
Nancy Graham, R.D., assistant professor (1975), M.S., University of Kentucky
Rick Morehead, instructor (1986), B.S., University of Louisville
Deborah Patton, R.D., assistant professor, (1985), M.S., Marshall University
Carolyn Taylor, assistant professor (1974), Ed.S., Morehead State University

Department of Industrial Education and Technology

Scott Gillock, assistant professor (1986), M.S., Morehead State University
Robert T. Hayes, assistant professor (1974), M.S., Eastern Kentucky University
Dennis Karwatka, associate professor (1970), M.S., Indiana State University
Wayne Morella, associate professor (1971), Ph.D., Southern Illinois University
Edward G. Nass, associate professor (1963), M.S.Ed., Northwestern State College of Louisiana
Robert E. Newton, professor (1963), Ed.D., Texas A & M University
Meade S. Roberts, associate professor (1966), M.Ed., University of Cincinnati
Gregory Russell, assistant professor (1986), M.B.A., University of Kentucky
Rodney B. Stanley, assistant professor (1986), M.S., Morehead State University
Ronald Tucker, professor (1968), Ed.D., Oklahoma State University
Pepper A. Tyree, assistant professor (1973), M.S., Murray State University
John VanHoose, assistant professor (1976), M.S., Morehead State University

Department of Nursing and Allied Health Sciences

Barbara Barker, instructor (1982), M.A., R.T.(R)A.R.R.T., Morehead State University
Alta Blair, instructor (1984), B.S.N., University of Kentucky
Janice Brumagen, assistant professor (1972), M.S.N., University of Kentucky
Jacklynn K. Darling, instructor (1979), M.S., R.T.(R)A.R.R.T., Morehead State University
Janet Gross, assistant professor (1983), M.S.N., University of Kentucky
Patricia A. Herald, assistant professor (1986), M.S.N., University of Kentucky
Freda L. Kilburn, assistant professor (1985), M.S.N., University of Kentucky

Sheryl Luchtefeld, instructor (1980), B.S.N., Southern Illinois University
Barbara S. Moore, assistant professor, M.S.N., University of Kentucky
Betty Porter, associate professor (1971), Ed.D., University of Kentucky
Pauline Ramey, associate professor (1973), Ed.S., Morehead State University
Margaret S. Selby, assistant professor (1985), M.S.N., University of Wisconsin (Madison)

Rae P. Smith, assistant professor (1983), B.S.R.T.(R)A.R.R.T., Alderson Broaddus College
Elizabeth Tapp, assistant professor (1972), M.A.C.E., Morehead State University

Clinical Faculty

Mark Adkins (1985), B.U.S., R.T. (R) A.R.R.T., Morehead State University (Morgan Co. ARH Hospital)
Timothy Damron, (1986), A.A.S., R.T. (R) A.R.R.T., Morehead State University (Mary Chiles Hospital)
Donald L. Gee (1986), R.T. (R) A.R.R.T., Colorado General Hospital (Harlan ARH Hospital)
William M. Hall (1973), M.D., University of Kentucky (Humana Hospital—Lake Cumberland)
Cathy Hapoff (1984), A.A.S., R.T. (R) A.R.R.T., Washtanaw College (Humana Hospital—Lake Cumberland)
Kenneth Hicks (1985), A.A.S., R.T. (R) A.R.R.T., Morehead State University (Hazard ARH Hospital)
Kenneth B. Hinton (1973), R.T. (R) A.R.R.T., Cincinnati General Hospital (Meadowview Regional Hospital)
Nancy McCleese (1985), A.A.S., R.T. (R) A.R.R.T., Morehead State University (St. Claire Medical Center)
John Meade (1982), A.A.S., R.T. (R) A.R.R.T., Morehead State University (Humana Hospital—Lake Cumberland)
Brenda S. Renfro (1982), B.U.S., R.T. (R) A.R.R.T., Morehead State University (Humana Hospital—Lake Cumberland)
Michael H. Sullivan (1986), R.T. (R) A.R.R.T., Central Baptist Hospital (Humana Hospital—Louisia)

College of Arts and Sciences

Department of Art

David Bartlett, associate professor (1980), M.F.A., University of Michigan
Bill R. Booth, professor (1970), Ph.D., University of Georgia
Dixon Ferrell, associate professor (1980), M.F.A., University of Mississippi
Robert Franzini, associate professor (1980), M.F.A., University of Iowa
Ryan Howard, professor (1972), Ph.D., University of Michigan
Roger H. Jones, professor (1965), Ed.D., Indiana University
Joe D. Sartor, associate professor (1968), M.A., University of Missouri
Thomas Sternal, professor (1984), M.F.A., University of Montana
Stephen Tirone, associate professor (1982), M.F.A., University of Wisconsin

Department of Biological and Environmental Sciences

David M. Brumagen, professor (1965), Ph.D., University of Kentucky
Fred M. Busroe, associate professor (1967), M.A., University of Virginia
Gerald L. DeMoss, professor (1968), Ph.D., University of Tennessee
Richard G. Eversole, assistant professor (1965), M.A., Morehead State University
Jerry F. Howell Jr., professor (1972), Ph.D., University of Tennessee
David T. Magrane, professor (1976), Ph.D., University of Arizona
David L. McNeely, associate professor, (1983), Ph.D., Oklahoma State University
Leslie E. Meade, associate professor (1971), M.S., Morehead State University
Ted Pass II, professor (1972), Ph.D., Virginia Polytechnic Institute and State University
Madison E. Pryor, professor (1964), Ph.D., University of Tennessee
David J. Saxon, professor (1967), Ph.D., Southern Illinois University
Howard L. Setser, professor (1964), Ph.D., University of Kentucky
Craig T. VanBell, assistant professor (1984), Ph.D., University of Iowa

Clinical Faculty

Harry G. Browne (1978), M.D., Cornell University Medical College (United Technical Institute)
G.F. Buckley (1981), M.D., University of Toronto (Methodist Hospital of Kentucky)

Victor Y. Cabanas (1978), M.D., Southwestern University (Providence Hospital)
 Harry W. Carter (1985), M.D., Harvard Medical School (St. Elizabeth Medical Center)
 Martha J. Cope (1981), M.T. (ASCP), B.S., Murray State University (Lourdes Hospital)
 Karen Elfers (1986), M.T. (ASCP), B.A., Thomas More College (St. Elizabeth Medical Center)
 LaVerne Floyd (1978), M.A., Tennessee Technological University (United Technical Institute)
 Marie Keeling (1982), M.D., University of Louisville (University of Louisville)
 Helen Layman (1982), M.T. (ASCP), B.S., Spalding College (University of Louisville)
 Betty Martin (1986), M.T. (ASCP), B.S., Pikeville College (Methodist Hospital of Kentucky)
 Helen Pater (1978), M.T. (NCA), B.A., Mt. St. Joseph College (Providence Hospital)
 James R. Roush (1981), M.D., University of Indiana (Lourdes Hospital)

Department of Communications

Lawrence S. Albert, assistant professor (1986), Ph.D., Pennsylvania State University
 Richard L. Banks, assistant professor (1985), M.A., Pennsylvania State University
 Michael Biel, associate professor (1978), Ph.D., Northwestern University
 William David Brown, professor (1966), M.A., Louisiana State University
 David Collins, assistant professor (1981), M.A., Marshall University
 Larry Dales, assistant professor (1974), M.A., Brigham Young University
 Richard Dandeneau, professor (1981), Ph.D., Southern Illinois University
 Dale Greer, assistant professor (1982), M.A., Morehead State University
 Harlan Hamm, associate professor (1965), M.A., Bowling Green State University
 Travis Lockhart, associate professor (1982), Ph.D., University of Texas
 James E. Quisenberry, professor (1968), Ph.D., Ohio University
 Tom E. Scott III, assistant professor (1976), M.A., Morehead State University
 Joyce E. Whiting, assistant professor (1975), M.A., Morehead State University
 Jack E. Wilson, professor (1967), Ph.D., Michigan State University
 Thomas L. Yancy, assistant professor (1977), M.A., Morehead State University

Department of English, Foreign Languages, and Philosophy

English and Foreign Languages

Michelle Boisseau, associate professor (1987), Ph.D., University of Houston
 Glenna E. Campbell, associate professor (1966), M.A., Morehead State University
 Vincente Cano, associate professor (1985), Ph.D., University of Georgia
 Betty M. Clarke, assistant professor (1965), M.A., Morehead State University
 G. Ronald Dobler, professor (1972), Ph.D., University of Iowa
 Marc D. Glasser, professor (1972), Ph.D., Indiana University
 Bernard G. Hamilton, assistant professor (1963), A.M., University of Mississippi
 Frances L. Helphinstine, professor (1966), Ph.D., Indiana University
 Joyce C. LeMaster, associate professor (1961), M.A., Morehead State University
 Ina M. Lowe, assistant professor (1970), M.A., Morehead State University
 George A. Mays, assistant professor (1969), M.H.E., Morehead State University
 Edward E. Morrow, assistant professor (1961), A.M., George Peabody College
 Mary M. Netherton, associate professor (1964), M.A., University of Kentucky
 Rose Orlich, professor (1970), Ph.D., Notre Dame University
 Essie C. Payne, assistant professor (1966), A.M., Auburn University
 Charles Pelfrey, professor (1962), Ph.D., University of Kentucky
 Betty H. Peters, assistant professor (1975), Ed.S., Morehead State University
 Glenn C. Rogers, professor (1967), Ph.D., University of North Carolina

Judy Rogers, professor (1967), Ph.D., University of North Carolina
 Thomas S. Stroik, assistant professor (1987), M.A., University of Wisconsin
 M.K. Thomas, professor (1964), Ed.D., Tulsa University
 Eugene O. Young, associate professor (1984), Ph.D., University of Tennessee

Philosophy

Betty R. Gurley, professor (1969), Ph.D., Southern Illinois University
 George M. Luckey, professor (1961), Ph.D., Southern Illinois University
 Franklin M. Mangrum, professor (1959), Ph.D., University of Chicago

Department of Geography, Government, and History

Geography

Roland L. Burns, professor (1972), Ed.D., University of Southern Mississippi
 Gary C. Cox, professor (1970), D.A., University of Northern Colorado
 Robert B. Gould, professor (1963), Ph.D., University of Tennessee
 James R. Robinson, assistant professor (1965), M.A., Morehead State University

Government

Lindsey R. Back, professor (1974), Ph.D., University of Tennessee
 Jack E. Bizzel, professor (1966), Ph.D., Southern Illinois University
 William Green, associate professor (1984), Ph.D., State University of New York at Buffalo
 Kay Schafer, associate professor (1983), J.D., University of Kentucky
 George T. Young, associate professor (emeritus) (1932), A.M., Columbia University

History

Donald F. Flatt, professor (1962), Ph.D., University of Kentucky
 Charles E. Holt, professor (1968), Ph.D., University of Kentucky
 Broadus B. Jackson, professor (1969), Ph.D., Indiana University
 John E. Kleber, professor (1968), Ph.D., University of Kentucky
 Perry E. LeRoy, professor (1961), Ph.D., Ohio State University
 Stuart S. Sprague, professor (1968), Ph.D., New York University

Department of Mathematical Sciences

Ben Flora Jr., professor (1972), Ph.D., Ohio State University
 Johnnie G. Fryman, associate professor (1969), Ed.D., University of Kentucky
 Charles Rodger Hammons, professor (1971), Ph.D., University of Kentucky
 Lloyd R. Jaisingh, assistant professor (1985), Ph.D., Texas Tech University
 Glenn E. Johnston, professor (1969), Ph.D., Texas Tech University
 C. Randall Leigh, instructor (1986), M.S., Southern Illinois University
 Robert J. Lindahl, professor (1970), Ph.D., University of Oregon
 Nell F. Mahaney, assistant professor (1963), M.A., Morehead State University
 James D. Mann, associate professor (1966), M.M., University of South Carolina
 Dixie M. Moore, assistant professor (1963), M.A., Marshall University
 Gordon Nolen, associate professor (1967), M.S., University of Kentucky
 Ted M. Pack, instructor (1980), AMED, Morehead State University
 Randy K. Ross, assistant professor (1986), M.A., Marshall University
 Joyce Saxon, assistant professor (1964), A.M., Morehead State University

Department of Music

David Anderson, assistant professor (1978), M.M., Indiana University
 Anne Beane, instructor (1978), M.M., Morehead State University
 James R. Beane, associate professor (1959), M.M., Louisiana State University
 William M. Bigham, professor (1965), Ph.D., Florida State University
 Harold Leo Blair, associate professor (1975), M.F.A., Ohio University
 Suanne Blair, assistant professor (1969), M.M., University of Southern California
 James W. Bragg, associate professor (1963), M.M., New England Conservatory of Music
 R. Jay Flippin, associate professor (1969), M.M., Morehead State University
 E. Glenn Fulbright, professor (1960), Ph.D., Indiana University
 Christopher S. Gallaher, professor (1972), Ph.D., Indiana University

JoAnne Keenan, instructor (1976), M.M., Morehead State University
 Larry W. Keenan, professor (1967), M.M., Indiana University
 Milford Kuhn, assistant professor (1976), M.M., University of Miami (Fla.)
 Earle L. Louder, professor (1968), D.M., Florida State University
 Edward Malterer, associate professor (1977), D.A., Ball State University
 Richard Miles, assistant professor (1985), M.S.M.E., University of Illinois
 Frederick A. Mueller, professor (1967), D.M., Florida State University
 Eugene C. Norden, assistant professor (1968), M.M., Morehead State University
 Frank Oddis, assistant professor (1977), M.M., East Carolina University
 Robert D. Pritchard II, assistant professor (1972), M.M., Duquesne University
 Raymond Ross Jr., assistant professor (1978), M.M., North Texas State University
 John K. Stetler, associate professor (1959), M.M., Wichita State University
 Lucretia M. Stetler, associate professor (1964), M.M., Morehead State University
 Vasile J. Venetozzi, associate professor (1966), M.M., Eastman School of Music

Department of Physical Sciences

Chemistry

H. Wade Cain, assistant professor (1982), Ph.D., Auburn University
 Herbert C. Hedgecock Jr., assistant professor (1980), Ph.D., University of Tennessee
 Richard L. Hunt, associate professor (1980), Ph.D., University of Chicago
 Lamar B. Payne, professor (1962), Ph.D., University of Alabama

Geosciences

David K. Hylbert, professor (1963), Ph.D., University of Tennessee
 Charles E. Mason, assistant professor (1983), M.S., George Washington University
 John C. Philley, professor (1960), Ph.D., University of Tennessee

Physics

Russell M. Brengelman, professor (1967), Ph.D., Georgia Institute of Technology
 David R. Cutts, professor (1968), Ph.D., University of Tennessee
 Charles J. Whidden, professor (1968), Ph.D., Virginia Polytechnic Institute and State University

Science Education

Maurice E. Esham, associate professor (1968), Ed.D., Virginia Polytechnic Institute and State University
 William R. Falls, professor (1961), Ed.D., Indiana University
 Ronald L. Fiel, professor (1972), Ed.D., Indiana University
 Carl V. Ramey, associate professor (1973), Ed.D., Indiana University

College of Professional Studies

Department of Business and Economics

Robert Albert, instructor (1986), M.B.A., Morehead State University
 John M. Alcorn, associate professor (1976), M.B.A., Georgia State University
 Bonnie H. Bailey, instructor (1979), M.B.A., Morehead State University
 Ralph Begley, instructor (1986), Ed.D., University of Tennessee
 Ray Bernardi, professor (1984), Ph.D., University of Oklahoma
 Herbert Berry, associate professor (1980), Ph.D., New York University
 Roland Buck, associate professor (1983), Ph.D., Texas A&M University
 Everett Campbell, professor (1983), Ph.D., Temple University
 Rodger D. Carlson, professor (1983), Ph.D., Claremont Graduate School
 C. Dale Caudill, instructor (1980), M.B.A., Morehead State University
 Alex D. Conyers, associate professor (1958), M.B.A., University of Kentucky
 William Counts, instructor (1984), B.S., Morehead State University
 Bernard Davis, professor (1978), Ph.D., University of Kentucky
 John Graham III, assistant professor (1967), M.H.E., Morehead State University
 Jack Henson, assistant professor (1970), M.S.E., Arkansas State University
 Charles Hicks, professor (1986), Ph.D., Southern Illinois University
 Clifford S. Hunt, instructor (1984), M.B.E., Morehead State University

Sue Y. Luckey, professor (1963), Ph.D., Southern Illinois University
 Susan Martin, instructor (1986), M.B.A., Morehead State University
 Beverly McCormick, assistant professor (1985), J.D., University of Louisville
 Teresa McGlone, assistant professor (1984), M.B.A., Marshall University
 Vernon McGlone, assistant professor (1984), M.B.A., University of Kentucky
 Robert E. Meadows, professor (1982), D.B.A., Kent State University
 Green R. Miller, associate professor (1979), Ph.D., University of Kentucky
 Carole C. Morella, assistant professor (1966), M.A., Morehead State University
 Paul J. Mulcahy, Instructor (1981), B.B.A., Morehead State University
 Helen A. Northcutt, assistant professor (1966), A.M., Morehead State University
 John W. Osborne, assistant professor (1977), M.B.A., Eastern Kentucky University
 Mary Peggy Osborne, assistant professor (1979), M.B.A., Morehead State University
 Gail C. Ousley, assistant professor (1969), M.B.E., Morehead State University
 Rosemary Peavler, assistant professor (1983), M.B.A., University of Kentucky
 Jack W.R. Peters, associate professor (1979), Ph.D., University of North Dakota
 Bill B. Pierce, professor (1964), Ed.D., Wayne State University
 William A. Rodgers, professor (1982), Ed.D., University of Virginia
 William Sharp, instructor (1970), M.B.E., Morehead State University
 Larry Stephenson, assistant professor (1967), M.A., Morehead State University
 Gary L. VanMeter, associate professor (1976), M.B.A., Southern Illinois University
 William M. Whitaker III, professor (1975), Ph.D., University of Kentucky
 Lowell K. Williams, assistant professor (1982), M.B.A., Miami University
 Mesghena Yasin, assistant professor of economics (1986), Ph.D., University of Cincinnati

Department of Education

Reedus Back, professor (1962), Ed.D., University of Kentucky
 Janie Baldridge, instructor (1984), M.A., Eastern Kentucky University
 Shirley Blair, assistant professor (1970), A.M., Morehead State University
 Diane Cox, assistant professor (1978), Ed.S., Morehead State University
 Richard Daniel, professor (1976), Ed.D., North Carolina State University
 Greta Duncan, assistant professor (1968), A.M., Morehead State University
 John R. Duncan, professor (1964), Ed.D., Indiana University
 George W. Eyster, associate professor (1968), Ed.S., Michigan State University
 Dennis L. Edinger, professor (1979), Ph.D., University of Florida
 Jerry Franklin, assistant professor (1969), M.Ed., Xavier University
 Kent Freeland, professor (1977), Ph.D., University of Iowa
 Carol Ann Georges, assistant professor (1970), M.A., University of Kentucky
 Daniel Grace, assistant professor (1986), Ed.D., University of Oregon
 Lawrence E. Griesinger, professor (1965), Ed.D., University of Cincinnati
 Coletta Grindstaff, assistant professor (1969), A.M., East Tennessee State University
 Karen Hammons, instructor (1972), M.A., Morehead State University
 Coleene Hampton, instructor (1973), A.M., Morehead State University
 Katherine Herzog, associate professor (1979), Ed.D., Florida State University
 Gregory A. Horsky, assistant professor (1984), Ph.D., University of Iowa
 Lois Howell, instructor (1972), M.A., University of Tennessee
 Jessie Mangrum, assistant professor (1968), A.M., Morehead State University
 Harry C. Mayhew, associate professor (1963), Ed.D., Ball State University
 Paul R. McGhee, professor (1983), Ph.D., Syracuse University
 Rodney Don Miller, professor (1966), Ed.D., Indiana University
 Bill F. Moore, associate professor (1970), Ph.D., University of Iowa
 Robert C. Needham, professor (1961), Ed.D., University of Kentucky
 Morris L. Norfleet, professor (1962), Ph.D., Purdue University
 Dean Owen, professor (1977), Ph.D., University of Florida
 John W. Payne, professor (1969), Ed.D., University of Kentucky
 Mary Ann Pollock, assistant professor (1977), A.M.E.D., Morehead State University
 Dreama D. Price, assistant professor (1974), A.M., Morehead State University
 Robert L. Prickett, assistant professor (1984), Ed.D., East Texas State University

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Abbreviations		
Course Prefixes	22	
Degree	9	
Absences	12	
Academic Bankruptcy	14	
Academic Services	15	
Academic Warning, Re-entry for Students	13	
Accounting		
Courses in	91	
Program	23	
Accreditation and Memberships	11	
Administrative Directory	142	
Admissions	1	
Auditors	2	
Freshmen	1	
GED Recipients	1	
International Students	1	
Non-Ky. High School Graduates	2	
Provisional	1	
Referral Program	15	
Returning Students	1	
Special Students	2	
Transfer Students	1	
Adult and Continuing Education	101	
Advertising-Public Relations	52	
Advisement Services	15	
Advising	15	
Advisor Assignment	15	
Check Sheets	9	
Counseling	15	
General Studies (Undecided) Students	15	
Handicapped Students	15	
International Students	1, 16	
Minority Students	16	
Required Advisor Contacts	15	
University Counseling Center	15	
Agriculture	23	
Business Technology	25	
Courses	92	
Economics	24	
Farm Production Technology	41	
General	24	
Management	41	
Programs	23	
Agriculture and Natural Resources, Dept. of	23	
Agronomy	24	
Allied Health Sciences Courses	94	
Alumni Association	16	
Animal Science		
Agriculture Business Technology Option	23	
Farm Production Technology Option	24, 25, 41	
Application Dates	2	
Applied Sciences and Technology, College of		
Agriculture and Natural Resources, Dept. of	23	
Home Economics, Dept. of	46	
Industrial Education and Technology, Dept. of	48	
Nursing and Allied Health Sciences, Dept. of	60	
Area, Definition of	6	
Army ROTC	17	
Art		
Courses	94	
Dept. of	26	
Education	26	
Programs	26	
Arts and Sciences, College of		
Dept. of Art	26	
Dept. of Biological and Environmental Sciences	28	
Dept. of Communications	30	
Dept. of English, Foreign Languages, and Philosophy	37	
Dept. of Geography, Government, and History	44	
Dept. of Mathematical Sciences	54	
Dept. of Music	59	
Dept. of Physical Sciences	66	
Associate Degree	10	
Athletic Training Program	27	
Attendance, Class	12	
Auditors	2	
Bachelor's Degrees	7	
Graduation Requirements	9	
Listings	7	
Bankruptcy, Academic	14	
Biological and Environmental Sciences, Dept. of	28, 40	
Biology	28	
Courses	95	
Programs	28	
Secondary Science Major and Minor	78	
Botany Courses	119	
Broadcast	73	
Operations	73	
Programs	73	
Technology	29	
Television Broadcasting	73	
Business	27	
Administration	27	
Basic	27	
Education	27	
Business Administration	27, 34	
Business and Economics	27, 34	
Bachelor of Business Administration	27, 80	
Dept. of	27	
General Ed. Requirements	27, 34	
Calendar, Academic	IFC	
Career Planning and Placement	16	
Catalog Validity	iv	
Certificate	11	
Clerical Studies	30	
Defined	11	
Secretarial Studies	80	
Certification, Teacher	20, 65, 89	
Change in Schedule	12	
Check Sheets	9	
Chemistry	29, 40	
Courses	97, 120	
Programs	29	
Secondary Science Major	78	
Child Development Program	30	
Classification, Student	12	
Clerical Studies	30	
Clothing and Textiles (see Textiles and Clothing)		
Commencement	11	
Communications	30	
Courses	98	
Dept. of	30	
General	30	
Programs	30	
Organization	31	
Computer Programming (see Data Processing)	55	
Construction Technology		
Courses	98	
Two-Year Program	31	
Cooperative Education	17	
Corrections	32	
Courses	99	
Programs	32	
Correspondence Courses	17	
Counseling (also see Advising)	15	

- Courses (also see subject listings) 91
 - Abbreviations 22
 - Attendance 12
 - Auditing 2, 12
 - Correspondence Courses 17
 - Fees 3
 - Levels 12
 - Load 12
 - Marking system 12
 - Numbering 12
 - Pass-Fail 13
 - Repeating 12
 - Schedule Change 12
 - Television 17
 - Withdrawals 3, 12
- Crop Science
 - Agriculture Business Technology Option 25
 - Farm Production Technology Option 41
- Data Processing
 - Courses 99
 - Programs 32
- Dean's List 13
- Degrees (also see individual course listings)
 - Abbreviations 9
 - Listing 22
 - Requirements 9
 - Second 11
- Design, Clothing and Textiles
 - Textiles and Clothing Option 87
 - Drafting and Design 34
 - Interior 51
- Dietetics 32
- Directories, Administration and Faculty 142, 143
- Drafting and Design Technology 34
- Driver Education 46
- Early Childhood Education 36
 - Certification 36
 - Courses 109
 - Endorsement 36
 - Kindergarten 36
- Earth Science 34
 - Programs 34
 - Secondary Science Major 79
- Ecology, Environmental Science Option 40
- Economics 34
 - Courses 100
 - Option, Environmental Science 40
 - Programs 34
- Education
 - Adult and Continuing 101
 - Courses 101
 - Department of 36
 - Early Childhood 36
 - Elementary 36
 - Foundations 102
 - Guidance and Counseling Courses 102
 - Library Science/Instructional Media 117
 - Professional 104
 - Professional Laboratory Experiences 18
 - Secondary Courses 103
 - Special 103
 - Teacher Education Program 18
- Electrical Technology 35
- Electricity-Electronics Technology Courses 104
- Electronics Technology 35
- Elementary Education 36
 - Courses 101
 - Early Childhood Endorsement 36
- Kindergarten Education 36
 - Programs 36
- Engineering 68
 - Pre-engineering 68
 - Science 37
- English 37
 - Courses 104
 - Programs 37
- English, Foreign Languages, and Philosophy, Dept. of 37
- Entitlements 6
- Environmental Science 40
- Faculty Directory 143
- Farm Production Technology 41
- Fashion Merchandising 41
 - Textiles and Clothing Option 87
 - Program 41
- Fees 2
 - Course 3
 - Housing 3
 - Meal Fees 2
 - Music Fees 3
 - Other Fees and Refunds 3
 - Student Health Service Fee 2
 - Withdrawal from School 3
- Financial Aid 3
 - Entitlements 6
 - Grants 3
 - Loans 5
 - Package 3
 - Satisfactory Progress Requirements 4
 - Scholarships and Awards 4
 - Selective Service Registration Requirement 3
 - Work-Study 3
- Finance
 - Courses 106
 - Program 42
- Fine Arts Courses 106
- Foodservice
 - Administration 42
 - Technology 43
- Foreign Languages
 - French 43
 - German 45
 - Latin 52
 - Russian 77
 - Spanish 83
- Foundations (Education) 102
- French
 - Courses 106
 - Programs 43
- Full-Time Students 2, 12
- GED Recipients 1
- General Education Requirements 9
 - Associate Degree 10
 - Bachelor's Degree 9
 - One-Year Certificate 11
 - Teacher Certification 10
- General Studies Program 15
- Geography 44
 - Courses 107
 - Programs 44
- Geography, Government, and History, Dept. of 45
- Geology 40, 44, 120
 - Environmental Science Option 40
 - Programs 40, 44, 120
- Geoscience Courses 107
- German Courses 108

- Government
 - Courses108
 - Programs45
- Grade-Point Average (g.p.a.)12
- Grades12
 - Honors13
- Marking System12
- Pass-Fail13
- Reports13
- Scholastic Standing13
- Transcripts13
- Graduation9
 - Applying for Graduation11
 - Check Sheets9
 - Commencement11
 - Requirements for degrees9
 - Requirements for general education courses9
 - With Honors13
- Grants3
- Graphic Arts Technology45
- Graphics Communications Technology Courses110
- Grievance Procedures, Academic14
- Guaranteed Student Loan (GSL)5
- Guidance and Counseling Courses102
- Gulf Coast Research Laboratory119
- Handicapped Students15
- Health46
 - Courses110
 - Driver Education Endorsement46
 - Programs46
- Health, Physical Education, and Recreation, Dept. of46
- Health Fee2
- History
 - Courses111
 - Programs46
- Home Economics
 - Courses112
 - Department of46
 - General47
 - Programs46
 - Vocational46
- Honors13
- Honors Program17
- Horsemanship47
- Horticulture25
 - Courses25, 26
 - Ornamental63
- Housing6
 - Fees2
 - Married Student3
- Industrial Education48, 89
 - Courses114
 - Programs48
 - Vocational89
- Industrial Education and Technology, Dept. of48
- Industrial Supervision and Management Technology49
- Industrial Technology Programs49
- Integrated Science50
- Interior Decoration50
- Interior Design51
- International Students1, 16
- Journalism31, 51
 - Courses116
 - Emphasis31
 - Programs31, 51
- KHEAA Grant5
- Kindergarten Education36
- Latin, Courses in117
- Learning and Behavior Disorders84
- Learning Laboratory15
- Library, Camden-Carroll16
- Library Science and Instructional Media Courses117
- Load, Student12
- Loans5
- Machine Tool Technology53
- Major, Definition6
- Management
 - Courses117
 - Program53
- Manufacturing Technology Courses119
- Marine Science Courses119
- Marketing
 - Courses118
 - Programs54
- Marking System12
- Married Student Housing6
- Mathematical Sciences, Dept. of54
- Mathematics54
- Courses121
 - Programs54
 - Secondary Science Major54
- Medical Technology55
- Microbiology Courses120
- Military Science
 - Courses122
 - Department of57
 - Minor57
- Mining57
 - Administration58
 - Courses122
 - Programs58, 75
 - Reclamation and Energy Studies57
 - Technology58
- Minor, Definition6
- Minority Students16
- Music59
 - Applied59
 - Courses123
 - Dept. of59
 - Fees59
 - General Requirements59
 - Music Education60
 - Programs59
- Non-Kentucky High School Graduates2
- Non-Traditional Student Counseling15
- Numbering of Courses12
- Nursing
 - Courses126
 - Four-Year Program61
- Nursing and Allied Health Sciences, Dept. of61
- Oceanography120
- Office Administration Courses127
- Office Management64
- One-Year Programs7, 11
- Organization Communication31
- Organizations, Academic and Honor18
- Ornamental Horticulture64
- Paralegal Studies64
- Part-Time Students2, 12
- Pass-Fail13
- Personal Development Institute Courses128
- Philosophy65
 - Courses128
 - Programs65
- Photojournalism52
- Physical Education65

- Courses128
- Programs65
- Physical Sciences, Dept. of66
- Physics66
 - Courses130
 - Environmental Science Option40
 - Programs66
 - Secondary Science Major78
- Placement Services (see Career Planning and Placement)
- PLUS Loan Program5
- Power and Fluids Technology66
- Pre-Chiropractic67
- Pre-Dentistry67
- Pre-Engineering68
- Pre-Forestry68
- Pre-Law69
- Pre-Medicine69
- Pre-Optometry69
- Pre-Pharmacy70
- Pre-Physical Therapy70
- Pre-Veterinary Medicine71
- Production Management71
- Professional Education Courses104
- Professional Laboratory Experiences18
- Professional Studies, College of
 - Business and Economics, Dept. of27
 - Education, Dept. of36
 - Health, Physical Education, and Recreation, Dept. of110
 - Military Science, Dept. of57
 - Psychology, Dept. of72
 - Sociology, Social Work, and Corrections, Dept. of83
- Programs of Study
 - Degrees7
 - Teacher Certification Program7
- Psychology72
 - Courses130
 - Department of72
 - Programs72
- Purposes of the Universityiv
- Radio-Television
 - Broadcasting73
 - Courses131
 - Programs31, 73
- Radiologic Technology
 - Courses132
 - Two-Year Program74
- Real Estate
 - Courses133
 - Programs75
- Reclamation Technology
 - Courses144
 - Option57, 76
- Records, Student13
- Recreation
 - Courses134
 - Programs76
- Refunds3
- Regents, Board of142
- Registration11
 - Change in Schedule12
 - Course Load12
 - Course Numbering12
 - Early Registration and Orientation11
 - Graduate Credit12
 - Late Registration11
 - Pre-Registration11
- Regulations, Academic11
- Religion Courses135
- Religious Studies77
- Residency for Fee Assessment2
- Returning Students1
- Robotics Courses135
- ROTC, Army17
- Russian
 - Courses135
 - Program77
- Safety Education77
- Schedule Change12
- Scholarships and Awards4
- Scholastic Points12
- Scholastic Standing13
- Science77
 - Courses136
 - Integrated50
 - Secondary Science77
- Second Degree11
- Secondary Education Courses77, 103
- Secondary Science77
- Secretarial Studies81
- Selective Service Registration Requirement3
- SEOG5
- Serviceman's Opportunity College2
- Sexual Harassment Policy14
- Small Business Management81
- Social Sciences82
 - Environmental Science Option40
 - Programs82
- Social Work
 - Courses136
 - Programs83
- Sociology
 - Courses136
 - Programs83
- Sociology, Social Work, and Corrections, Dept. of83
- Spanish
 - Courses137
 - Program83
- Special Education
 - Courses103
 - Programs84
- Special Students2
- Speech
 - Communications Emphasis31
 - Courses138
 - Programs31, 86
- Speech/Theatre86
- Statistics Minor55
- Student Records, Right to Privacy13
- Students' Rights in Access to Records13
- Teacher Certification20, 65, 88
- Teacher Education Program18
- Television
 - Broadcasting73
 - Courses17
- Test of English as a Foreign Language (TOEFL)1
- Testing and Evaluation Center15
- Textiles and Clothing87
- Theatre
 - Courses139
 - Emphasis31
 - Major86
 - Programs31
- Trainable Mentally Handicapped Program85
- Transcripts1, 13
- Transfer Students1
- Tuition2

Tutoring.....	15	Vocational Home Economics Education.....	46
Two-Year Programs	7, 10	Vocational Rehabilitation	6
Undecided Students (see General Studies Program)		Vocational Trade and Industrial Education	89
University Counseling Center.....	15	Welding	
University Studies	10, 88	Courses	141
Veterans	6	Two-Year Program	90
Veterinary Technology		Who to See	21
Courses	140	Withdrawal from the University.....	12
Two-Year Program	88	Work-Study Programs	3
Vocational Agriculture Education	89	Zoology (Marine Science) Courses.....	120

